

# The Journal of the Michigan State Medical Society

PUBLISHED UNDER THE DIRECTION OF THE COUNCIL

VOL. VI

DETROIT, MICHIGAN, SEPTEMBER, 1907

No. 9

## Original Articles

### DISSEMINATED PERIPHERAL NERVE-IRRITATION AND NERVOUS EXHAUSTION—AN ANALYSIS OF 350 CASES\*

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Probably no terms in the nomenclature of nervous diseases are misused more frequently than those of neuritis and neurasthenia. In the former the diagnosis is frequently based upon one symptom, and that is a nerve-tenderness which is only a subjective sign and varies greatly in healthy individuals. In the latter almost any form of nervousness which cannot be accounted for by some organic disease is placed under this head. If, however, we rely on only positive signs, we shall soon learn that this is erroneous and, unless the practitioner adopts a very comprehensive definition, conclusions of any kind regarding these conditions are likely to go astray.

In recognition of these facts the author has been forced to adopt the above title for want of a better name in grouping a class of cases presenting the symptom-complex of general nervousness, fatigue and nerve-tenderness.

Because of the indefiniteness and the great variation in these conditions, it is well to come to an understanding of

what is meant by neurasthenia and neuritis for herein lies the explanation for the prevalence of the different opinions regarding the pathognomy of these disorders.

Neurasthenia has long been regarded as an irritable weakness in which all forms of nervous energy are reduced. It is marked by many subjective symptoms and very few objective phenomena, all more or less variable and inconstant. Charcot<sup>1</sup> regards headache, backache, gastro-intestinal atony, neuro-muscular weakness, cerebral depression, mental irritability and insomnia the true stigmata of the disorder. Secondarily and of less importance arise a host of subjective symptoms, the most frequent are tremor and muscular twitchings, increased tendon reflexes, general tiredness, tenderness over certain points over the spine, hypersensitiveness of the head and the extremities, spontaneous pain, visual disturbances, cardiac palpitation, vasomotor storms, incapacity for mental work and rapidly exhausted retinal sensitiveness.

As to neuritis, authors of the most recent works tell us that the peripheral

<sup>1</sup>"*Revue Neurol.*," Aug. 15, 1905.

\*Read at the 42nd Annual Meeting of the Michigan State Medical Society and approved for publication by the Publication Committee.

nerves are subject to inflammatory action of every grade of severity and the anatomical changes in neuritis vary according to the intensity of the process and the particular elements in the nerve-trunk that are most affected. Consequently the symptoms of neuritis vary greatly whether it is a perineuritis and adventitious neuritis or parenchymatous form, this distinction, however, is theoretical rather than clinical because it is not possible to draw a definite line between them in most cases. Briefly stated, the symptoms are either those of irritation, or those of the destruction of the conducting function of nerve fibres. All varieties of paresthesia, pain and tenderness along the course of the nerve, hyperesthesia or diminished sensitiveness, or both. Paresis, paralysis, trophic losses in the skin and muscles, and changed electrical excitability are the resulting symptoms as the case may be and the diagnosis must be based upon a group of definite symptoms, if we regard the condition as an inflammation in the nerve-trunk which is subject to the same pathological conditions occurring in other tissues of the body during an inflammatory process.

These are established facts with which we are all familiar, and the original purpose of this paper is not to bring out new theories but to make a plea for scrutiny in the analysis of cases of nervousness which present indefinite symptoms. Each and every complaint of the patient should be carefully considered and an attempt be made to find some pathological basis for the same. With this purpose in view, the author will attempt to make clear the necessity of this suggestion in citing a few of the numerous cases which present themselves for treatment, for the relief of a malady which has practically disabled them for a long period.

In taking 350 consecutive cases of general nerve-irritability in which the pre-

liminary diagnosis of neurasthenia, or neurasthenia and neuritis, was made, the author was able to divide them into three groups as follows:

1. Those patients suffering from a combination of mental and physical weakness and irritability, general hypersensitiveness and a reduction of all forms of nervous energy which tend to persist indefinitely and do not yield readily and relapse frequently.

2. Those cases in which a combination of abnormal motor, sensory and trophic phenomena exist in consequence of morbid changes in the peripheral nerve-trunks.

3. A class of patients that have definite and constant subjective symptoms depending upon a localized peripheral nerve-irritation resulting in nervous exhaustion which yield readily to treatment.

Seventy-three of the 350 cases belong to the first division which may be properly classed as neurasthenia, 38 to the second, which were cases of true neuritis with general nervous exhaustion, and 238 to the third, of which the following are typical cases.

CASE I.—Male, age 35, a native of Michigan and a farmer by occupation. He comes to the University Hospital on account of a general debility. Has been unable to follow his occupation for two years. He becomes easily fatigued and has a constant feeling of weakness and lassitude. Has occipital and frontal headaches, backache and a dull pain in the extremities, has not slept well for a prolonged period. He says that he is very nervous and fears that he will lose his mind.

There is nothing of interest in the family history, no neuropathic or psychopathic heredity, nor debilitating conditions in antecedents.

The patient is a man of good habits, smokes occasionally, uses no malt or spirituous liquors, his home surroundings are pleasant and is naturally of a happy disposition. He had the ordinary diseases of childhood before the age of ten and made good recovery. With the exception of an occasional disturbance of digestion, which consisted of distress after meals and gaseous eructa-

tions, he was well until about two or three years ago, when the present ailment began.

The first symptom he noticed was that he became more easily fatigued and was unusually tired after finishing the day's work. His sleep was disturbed and he felt tired and unrefreshed in the morning. He experienced a heaviness in the extremities, pain in the head and back, which he described as a dull ache. The gastric distress became more frequent. He was obliged to give up his work, became discouraged, apprehensive and emotional. He had been under treatment for two years without relief.

#### Preliminary diagnosis—Neurasthenia.

Physical examination.—The patient's facial expression is that of distress, otherwise his general appearance is good. He is well-nourished and of good physical development. The musculature is of good tone and muscular strength is good. Posture and gait not peculiar. The examination of the circulatory and respiratory system is negative. Tongue is slightly coated, teeth good, there is no abdominal tenderness, liver and spleen not palpable, bowels constipated. The patient stated that there is a sense of weight and pressure and sometimes burning in the epigastrium, usually associated with gaseous eructations occurring about an hour after meals. The stomach analysis revealed a marked hyperchlorhydria. This was somewhat variable.

There was no disturbance of the genito-urinary tract. The urine was rather scanty, the average amount in about 24 hours was about 540 cc. for the first few days after the patient was admitted. Specific gravity, 1020; acid reaction, the test for indican was positive, there is a small amount of sediment of uric acid and urates. Otherwise the examination was negative.

Blood examination.—Hemoglobin, 80 per cent; red blood corpuscles, 4,204,000; white corpuscles, 6,400.

Examination of the nervous system.—Muscular efforts easily fatigued, especially in the upper extremities. The hand-dynamometer registers 30 in the right hand and 20 in the left hand, repeated efforts showed diminished strength. There are no other motor disturbances. Electric irritability not changed. Aside from the feeling of general tiredness and fatigue, heaviness and pain in the extremities, there are no subjective sensory disturbances. Touch, pain and temperature sense are not disturbed. There is no superficial hyper-

sensitiveness of the skin nor over the spine. The patient complains of no pain on deep pressure over the spinous process. Deep pressure on the first lumbar spinal nerve at the point of exit causes marked pain, the same is true of the great sciatic, the great occipital, the musculo-cutaneous and the suprascapular. There are no visual disturbances, the visual fields are normal. The tendon reflexes are all very brisk, there is no ankle-clonus. All skin reflexes are active. The organic reflexes are not disturbed.

Clinical record.—The patient was put to bed. He had a sub-normal temperature varying from 97 to 98, the average pulse rate was 80. He was given hydrargyrum chlor. mit. 2 grs. in divided doses. But one portion of this was given. A saline laxative consisting of 120 grs. of sodium phosphate, 60 grs. of sodium sulphate was given him in a glass of hot water every morning, an hour before breakfast. Salol, 5 grs. four times daily before meals and at bed-time. Counter-irritation in the form of a canthos blister was applied over the tender points and repeated several times. After the localized tenderness was relieved, hydrotherapeutic measures were used, a cold shower with a brisk rub in the morning, a tepid bath at bed-time. There were no restrictions in the diet except in quantity. The rest in bed was continued for four weeks. At the end of the second week the patient was sleeping well, he felt refreshed in the morning, and at the end of the fourth week he was allowed to get up and take moderate exercise, resting two hours in the morning and two hours in the afternoon. He felt much stronger, but still became easily fatigued. The nerve-tenderness was greatly diminished. The urine was more copious (1,000 to 1,200 cc. in 24 hours), and the test for indican was negative. The temperature was 98.6, the pulse 80. At the end of the sixth week the patient was allowed to go home and four weeks later he was able to resume his occupation, feeling quite as well as ever.

CASE II.—Male, 41 years of age, a farmer, physically well-developed and of good general appearance. He presented himself for treatment of nervousness. He complained of headache, backache, pains and aches in the extremities and a general feeling of exhaustion. He sleeps poorly and is very irritable and fears his condition is serious.

History.—The family history is negative. The

patient's personal history is uneventful. He is a man of good habits. There is no history of venereal disease.

About five years ago he was obliged to give up his occupation on account of weakness and general exhaustion. He has lost energy and has no desire to work. This condition developed gradually with occasional remissions and exacerbations, he has been under treatment almost since the beginning of the trouble without relief.

**Physical examination.**—Posture is erect, musculature well-developed and of good tone. Muscular strength good, but becomes exhausted after repeated muscular effort. The skin is rather dry and slightly harsh.

The tongue is coated, appetite good; he has a feeling of fullness in the epigastrium and gaseous eructations after meals, bowels are constipated.

The examination of the respiratory and circulatory systems revealed nothing abnormal, the pulse is 82, the temperature 97.

The urine is scanty (490 cc. in 24 hours), highly colored, the specific gravity 1020, acid reaction. There is a fair amount of sediment, consisting of uric acid and urates. Indican was present.

The subjective sensations are a general feeling of exhaustion, with occasional dizziness, headache, backache, and wandering pains in the extremities.

The cutaneous sensibility is not disturbed in any part of the body. There is no hyperesthesia of the skin. Deep pressure over the great occipital, the musculo-cutaneous, the first lumbar and the sciatic caused marked pain.

The tendon reflexes are all increased, there is no ankle-clonus. Plantar reflex is present, no Babinski sign, all other skin reflexes active. Organic reflexes not disturbed. The expression of the eyes is dull, visual fields normal.

The patient's gait and movements in general are rather slow and deliberate. There is no incoordination and no marked loss of muscular power except that muscular strength is easily exhausted. The dynamometer registers 25 in the left and 32 in the right hand, second attempt 20 in the left and 25 in the right. Electrical reactions normal.

The treatment was the same as CASE I, with equally good results. One year later this patient reported that he is in perfect health.

**CASE III.**—Male, 31 years of age, teacher in public school, was admitted for treatment November 28, 1906, complaining of nervousness, incom-

petency, irritability, headache, backache, and a feeling of general exhaustion and insomnia.

**History.**—Family history is negative. Patient had measles and scarlet fever in childhood. He has worked hard and constantly for years, his habits are good, he is married and has two healthy children. Patient had always enjoyed excellent health until the present illness came on. Three years ago he became afflicted with insomnia, he was easily fatigued, and it was only through laborious efforts that he was able to carry on the usual duties of his occupation, and after a few weeks of growing weakness and prostration he consulted his family physician, who made the diagnosis of neurasthenia. He was obliged to give up his work and was treated for nearly two years with only temporary relief.

**Physical examination.**—The patient's expression is dull, he is well-nourished and of good physical development, 5 feet 11 inches in height, weight 165 pounds. Musculature well-developed and of a fairly good tone. Muscular strength good, station and gait not peculiar. The tongue is slightly coated, teeth good, digestion poor. He complains of distress a short time after meals and has gaseous and acid eructations, bowels constipated. The heart and circulation are not disturbed, pulse 72 per minute, temperature 98.6.

**Blood examination.**—Hemoglobin, 80 per cent; red blood corpuscles, 4,300,000; white corpuscles, 7,800.

The quantity of urine in 24 hours was 420 cc. Sp. Gr. 1022, contained neither albumen or sugar, there was a small amount of sediment, consisting of urates and uric acid, and a few squamous epithelial cells.

There are no visual disturbances, visual fields not contracted, and there is nothing peculiar about the eyes. The other special senses are not disturbed. There is no change in the cutaneous sensibility. Deep pressure at the emergence of the sciatic, first lumbar, the suprascapular, musculo-cutaneous and great occipital nerves causes marked pain. The deep reflexes are all increased, superficial reflexes all active, organic reflexes not disturbed, especially in the arms and hands. The electric reactions normal, no tremor nor muscular twitchings.

**Clinical history.**—The patient was given perfect rest in bed and the usual eliminative treatment was given and counter-irritation over the tender points was applied. The amount of urine increased within a few days, remaining about



1000 cc. in 24 hours. The patient slept well and all distressing symptoms abated, and he was able to return to his occupation after eight weeks' treatment. When he last reported he was in perfect health.

Case IV.—A young woman, 24 years of age, applied for treatment December 15, 1906. She had been nervous for four years, has had a great deal of headache, and backache and a constant feeling of general exhaustion. She has not amounted to anything, as she expressed it, for two years. Since about a year ago she has suffered from insomnia. She states that she is despondent at times and gave up all hope of ever being any better and treatment has been of no avail.

History.—The patient's mother is a very nervous woman but otherwise well. Her father died at the age of 60 of heart disease. The patient herself has always been well until about six years ago. At that time she had some trouble with her stomach, distress after meals, nausea and gaseous eructations. Her bowels are constipated.

Physical examination.—Facial expression is anxious, otherwise general appearance is good, well-nourished and a good color, skin is dry and slightly harsh. The tongue is slightly coated, teeth good, digestion disturbed, spleen and liver not palpable. Analysis of the stomach<sup>2</sup> contents revealed marked achlorhydria and slight retention. The circulation is not disturbed, pulse 72, temperature 97, lungs negative.

The amount of urine in 24 hours is 480 cc. Sp. Gr. 1018. Acid reaction, a small amount of sediment consisting of urates and uric acid and some epithelial cells.

Blood examinations.—Hemoglobin 80%, red corpuscles, 4,200,000, white blood corpuscles 7,800.

The eyes appear rather dull, the movements of the eyes and the eye reflexes are not disturbed nor are there any visual disturbances, the visual fields are but slightly contracted, other special senses are normal, cutaneous sensibility is not changed and there is no hyperesthesia of the skin or spine. Deep pressure at the points of exit of the great occipital, the first lumbar, the sciatic and the musculo-cutaneous causes great pain. The deep reflexes are very brisk, skin reflexes are all active, pharyngeal and corneal reflex present. The gait and movements of the extremities are

rather slow, the muscles are of good tone, muscular strength is good. The usual treatment was administered and after six weeks the patient returned home feeling much better and reported later as being well.

*Etiology and pathogenesis.*—The usual antecedents of chronic maladies, neuropathic and psychopathic heredity, play little or no part in the causation of this form of the disorder. Out of the 350 cases there were 213 in which the family history was negative, in 73 there was a history of nervousness in early life and a neuropathic heredity, in 48 cases there was a history of phthisis in the near relatives, in 16 a family history of insanity was a prominent feature. Sixty per cent of these cases were men past the age of 25 and under 45. In all but 5 cases of the entire series there was a history of disturbed digestion, and in all chronic constipation was a constant complaint. In 183 cases the stomach contents were examined and the result of the analysis was quite uniform, subacidity or inacidity and motor insufficiency was the condition, in 79 cases hyperchlorhydria was present. In all cases in this series defective elimination in general was a constant condition.

In 224 cases the quantity of urine in 24 hours was less than 500 cc. In the remaining cases it was slightly more. The Sp. Gr. was within the normal limits. There was neither sugar nor albumen, and the microscopic examination revealed no organic renal conditions.

The subjective sensory symptoms such as headache, backache, are apparently due to a localized irritation, and its severity depends upon the amount of disturbance at these points. The points of tenderness are distinctly localized over the great occipital nerve at a point where it pierces the complexus and trapezius muscles near their attachment to the cranium, and the external branch of the supraclavicular nerve at the point where it crosses the anterior border of

<sup>2</sup> Some of the analyses of the stomach contents were made in the clinical laboratory of Dr. Dock, some in the neurological laboratory and a few in the author's private laboratory.

the trapezius to the outer surface of the same muscle. The first lumbar nerve at the point of exit from the vertebral canal, the great sciatic at a point immediately below the lower margin of the piriformis muscle as the nerve passes out through the great sacro-sciatic foramen, and the musculo-cutaneous at the point where it penetrates the deep fasciæ and becomes cutaneous, are also tender.

The symptoms are those of irritation and not sufficient to give evidence of any marked change in the nerve-trunk, possibly a hyperæmia in the tissues immediately surrounding the nerve-trunk in the bony canal or where it passes through tense tissues, with a passive condition in the interstitial tissue of the nerve-trunk at this point. This, however, cannot be very marked because of the absence of any functional disturbance of the nerve. Dana<sup>3</sup> says that hyperæmia of the nerves is seldom recognized and authors of the more recent works on nervous diseases do not mention the subject or only allude to it casually. Leube suggests that the symptoms usually referred to as active hyperæmia are due to the action of toxic agents rather than to changes in the circulation. It is, however, readily conceivable that a localized irritation might produce an increased vascularity. These facts and the absence of any nerve tenderness along the nerve-trunk will not permit the suggestion of neuritis in these cases, and the character of the pain and the course of the disorder differentiates it from what is ordinarily termed neuralgia.

It becomes evident that there is sufficient cause in the facts noted above to produce the symptom-complex which is so familiar to us all. First, the conditions of the digestion are such that abnormal fermentative processes occur, defective elimination means accumulation of refuse, irritation of those tissues which offer the least resistance and at such

points where anatomical conditions may favor circulatory and nutritive disturbances. These irritants may affect both central and peripheral nerve organs alike or the constant peripheral irritation may cause a central fatigue. The evidence is in favor of the latter from the fact that removing the peripheral irritation relieves the symptoms of central exhaustion which is not the case where the condition depends primarily upon an exhaustion of the central organ from other causes.

Over 60% of the cases were diagnosed as neurasthenia, or neurasthenia and neuritis combined, previous to admission to the neurological clinic. The symptoms appear rather indefinite and the physical conditions are out of proportion with the patient's complaints and unless we guard against the influence of the patient's general attitude we are very apt to draw wrong conclusions.

The average duration of the illness in the cases of the first division when admitted for treatment was from two to eight years. All had been treated for at least two years and many much longer. The average time of treatment after admission to the hospital was about three months, 32 improved, none recovered. In the second variety the duration of the disorder before admission was from six months to three years. All were treated not less than two months, all improved, 31 recovered. The third class, much larger in number, offers better opportunity to judge the results of treatment. The length of time these patients had been sufferers before admission for treatment was from one to six years, all had been treated for a long period before being admitted to the University Hospital. One hundred and eighty-three cases belonging to this division were treated. The period of treatment was from six weeks to three months, all made a good recovery.

<sup>3</sup> *Diseases of the Nervous System*, 1906.

*Treatment.*—In regarding these conditions as rather general without a known localized pathological basis, the tendency in the treatment is that general measures are used, especially the various forms of electricity have been advocated by many who have given attention to the treatment of nervous disorders. These measures are purely empiric and, in some forms of the disorder are distinctly hurtful. The author is convinced that the condition has been prolonged in some of these cases by using these measures and regards its use contra-indicated in the class of cases just described. We should give our attention first to special pathological conditions such as disturbed digestion and defective elimination as well as the localized peripheral nerve-irritation, and above all, the most important part of the treatment is rest; this should be enforced for at least four weeks, and after this moderate exercise with a great deal of rest for the same period, or a little longer, in the meantime such drugs as are required to relieve the existing abnormal conditions may be given.

To what extent autotoxemia<sup>4</sup> is responsible for the causation of this disorder is as yet far from being definite, but we may assume that abnormal fermentative processes in the stomach and accumulation and decomposition in the bowels is a menace to the nutrition of

the organism in general, and we cannot overestimate the value of thorough elimination, it is an imperative preliminary in the treatment of this disorder. As to hydrotherapy, much benefit may be derived from a daily cold shower followed by a brisk rubbing.

While it was not my intention to bring out new facts in this form of neurosis, the value of the above classification is at once apparent when we consider the results of local treatment directed towards the relief of peripheral irritation which has much to do with the disturbance of the nervous system in general. Other advantages and most important to the patient are that we may assure him of a hopeful prognosis and a complete recovery.

Whether these cases should be all classed under the one general head of neurasthenia is of secondary importance as long as we do not consider them clinically and pathologically as a unit. It is of more importance that we consider them individually according to the symptoms and their pathological basis. It is, however, proper to assume that the symptom-complex of the cases which the author has placed in the first division is a direct expression of a particular state of neuropathy, it is the primary condition and neither disturbance of digestion, defective elimination nor auto-intoxication have the general importance that some authors have endeavored to ascribe to all cases of neurasthenia.

<sup>4</sup> "Toxic States of the Blood," by the author, *Amer. Journal of Med. Science*, Nov., 1900.

#### Discussion.

**Dr. Inglis, Detroit.** The paper is a very valuable contribution. One can find no fault with the classification given. We have the two distinct classes in which the indications for treatment are clear, and the third class of neurasthenia associated with pain. Tender points are readily found which are not due to inflammation or neuritis properly speaking. The author recognizes that the main factor in the treatment of these cases is rest. When there is pain it wears on the

nervous system more than we realize. Many of these patients treated simply as neurasthenics, would not recover unless there is relief of pain. We should in every way try to encourage the patient to forget the pain and occupy the mind with something else. Auto-intoxication should be emphasized as a very important etiological factor.

**Dr. Solis, Ann Arbor.** We should insist upon distinguishing between neuritis and neurasthenia

associated with pain. Frequently this latter condition is due to autointoxication of recent origin. If recognized, it can often be quickly relieved. Static electricity should be used in the acute cases. It is one of the strongest stimulants to cell activity. With this aid it is not necessary to resort to rest.

**Dr. Flintermann**, Detroit, said that the classification was a little new to him. The cases mentioned do not belong to neurasthenia, although tenderness on pressure does not exclude neurasthenia. In the cases cited there is no mention of phobias which are pathognomic of that

disease. Rest is very important in the treatment. Electricity has its uses. It is very unfortunate that the state has not provided for the care of these cases. At present there is no place whither they can be sent.

**Dr. Klingmann** remarked, in concluding, that even after the first class of cases which he had described had been brought under normal conditions they did not improve in every instance. In regard to electricity, he thought that, while it might relieve the peripheral irritation, it was fatiguing to the central nervous system, and for that reason he preferred other measures.

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## REMARKS ON THE DIAGNOSIS OF TWISTED PEDICLE OF PELVIC TUMORS\*

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Torsion of the pedicle of any kind of pelvic tumor may occur provided that the conditions are present, and the exciting cause. Those most often subjected to torsion of their pedicles are ovarian tumors of the solid variety, uni-locular and multi-locular cysts and, relatively most common of all, dermoid cysts. The uterus may be involved in a twisted pedicle of a subserous fibroid, and itself may be twisted upon the pedicle composed of the round and broad ligaments and the upper vagina, when enlarged from a mural fibroid or other tumor of its substance. It may be concerned in the torsion of the pedicle of some other pelvic tumor, especially of the ovary or the parovarium. The parovarian cyst, although it develops within the folds of

the broad ligament, may enlarge to such an extent that it acquires quite a long pedicle, torsion of which is not infrequently reported. The Fallopian tube is not uncommonly overtaken by this accident. The most common kind of tubal tumor to become thus affected is the hydrosalpinx. This is usually reported as a hematosalpinx, because the contents of the cystic tube are usually bloody as a result of the vascular disturbance incident to the torsion. Pyosalpinx, since it is usually complicated by numerous and dense adhesions, is seldom mobile enough to allow a twist of its pedicle. The tube which has become the gestation sac of an ectopic pregnancy has a number of times been observed with a twisted pedicle. The otherwise normal tube has not escaped torsion of the pedicle formed by the broad ligament and

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\*Read before the Kalamazoo Academy of Medicine, June 18, 1907.



its own uterine extremity.

Rokitansky is the first to mention torsion of ovarian pedicle, in an article published in 1841. Fourteen years later he gave an analysis of 13 cases observed by him. Ribbentrop, in 1865, first gave a careful description of the clinical aspect. Wiltshire, in 1868, performed the first successful operation for the relief of the trouble. Little is published upon the subject from this time until the eighties. Since then there is quite a literature of the subject because of the more frequent diagnosis and of the more frequent operations upon all pelvic diseases. Torsion of the pedicle of tubal tumors was first called to our attention in 1890 by Bland Sutton.

The conditions permitting and favoring the rotation of a pelvic tumor upon its pedicle so as to twist the latter are as follows. Moderate size of the tumor favors the torsion of its pedicle. A diameter of some four inches is the most common, but torsion may occur with much smaller tumors, even of the normal ovary or tube. If the tumor is so large that it occupies a large part of the abdomen, or indeed quite fills it, it is not easily enough moved to allow a twist of the pedicle. Then again, a large tumor has usually acquired so many adhesions that rotation is prevented by them. In Storer's series of 248 cases of torsion of the pedicle of ovarian tumors, 66 per cent weighed less than ten pounds.

The tumor must be mobile upon its pedicle. For that it must not be packed down into the floor of the pelvis but, in the beginning at least, must lie free rather high in that cavity. Adhesions of the surface of the tumor to the parietes or to other viscera in an obvious manner hinder or absolutely prevent rotation.

As another condition of mobility must be mentioned laxity of the abdominal walls. Rigid parietes tend to hold snugly in their places the viscera and

any tumors which may be present. Young nulliparæ rarely have torsion of the pedicle, while it is most common in women who have borne many children within a rather short period. Women formerly corpulent, but who have lost flesh, have similar lax abdominal walls. Tumors which are more likely to have their pedicles twisted are those showing irregularities of surface or irregular distribution of weight within their substances. For that reason dermoids, multilocular cysts and solid tumors are more likely to become rotated than others. Eighty-three per cent of Storer's cases were of this class. The equilibrium is disturbed by the irregularity in the weight and the irregularities of the surface offer many points for the exercise of the twisting forces. The period just after normal labor is one in which conditions are favorable for torsion of any pedunculated tumors which may lie within the pelvis. Thus Meyer reports the case of a young woman who, shortly after her second labor, was seized with symptoms pointing to hemorrhage, ileus or puerperal sepsis. These were weak and rapid pulse, obstipation, high fever and the presence of a tender mass in the right hypochondrium. A tumor, the size of a child's head, occupying the situation of the right ovary was found, on operation, to have become twisted in its pedicle.

The longer the pedicle the more likely is the tumor to rotate, but it requires more rotations to produce strangulation and consequent symptoms in cases where the pedicle is long than when it is short. Two or three turns with a pedicle of three or four inches in length will often not produce much interference with the circulation within the tumor, while half a turn with a short, thick pedicle may cause complete blood stasis. Most of the acute cases are those where the pedicle was relatively short and thick and therefore, when twisted, was completely strangulated. Many of the cases show-

ing intermittent symptoms are those where the pedicle is long and relatively thin so that the first rotation will merely slightly interfere with the blood circulation while there may be several subsequent crises due to further twists.

Numerous cases are reported where the tubal tumor or the normal tube itself becomes rotated and the pedicle becomes twisted without any involvement of the ovary. Baldwin reports a case of gangrene of an hydrosalpinx due to torsion of the pedicle where he removed the offending tumor without disturbing the ovary of that side.

Besides the favoring conditions mentioned already there must be certain exciting casual factors which produce the culmination of the torsion. Much theory has been indulged in in this regard, but there is little of real value so far determined. Storer enumerates possible causes and tabulates them. In the tumor itself; disturbance of equilibrium by irregular growth. In the uterus; pregnancy, the exertions of labor, the condition of void after labor whereby the tumor falls into the space left by the diminished uterus. In the bladder; alternate emptying and filling of the organ aided by movements of the rectum. In the rectum; descent of feces, violent acts of defecation, rolling of the tumor into the space left by the recently voided bowel. Intestinal peristalsis, in some unexplained way. By influence of another tumor in disturbing equilibrium or in pushing the rotating tumor around as the body moves. Certain unusual movements of the body as a whole, or certain constrained movements or positions of the body or parts thereof may sometimes act to rotate a tumor so that its pedicle will twist. Thus straining at stool or in vomiting, a sudden long breath, running, stooping, making a misstep or sitting down hard may aid the abnormal motions of the tumor. So also may sudden change of position while in bed or twists

of the body in rising from bed. Trauma; a fall or jolt, pressure of some object against the belly, a fall, enema, bimanual gynecological examination, tapping of a cyst.

The results to the tumor and to the patient herself depend upon how completely and how quickly the blood supply is impaired. A sudden complete twist will cut off at once both veins and arteries, so that the tumor will at once die and become a necrotic body within the peritoneal cavity. It will soon become infected with microbes from the general circulation or from the neighboring loops of intestines. If the patient does not die of shock without delay, she will probably succumb to a quick peritonitis unless the offending dead matter is removed by operation. A less complete shutting off of the blood vessels is more common. The twist is more gradual and does not immediately shut off nutrition. The veins are more soft and easily compressible than the arteries. Therefore the first result is an edema of the tumor walls and of the contents of the sac. A more or less rapid augmentation of the size of the tumor is consequent upon the edema and upon the hemorrhage into the walls and lumen of the cyst. As the veins become occluded, the pressure within the capillaries of the strangulated tumor becomes high and their walls rupture, allowing free blood to extravasate into the tissues of the tumor and into the cavity, if the tumor is cystic. The surface of the tumor becomes roughened and adhesions take place between it and the neighboring parts. These are rarely very firm, and do not interfere with the subsequent further torsion which often supervenes.

While the actual exciting causes are not well defined yet the formation of the torsion follows in the main certain definite rules. Küstner elaborated a law concerning the direction of rotation which is generally observed. Cysts or tumors of the right side rotate towards the left,

and those of the left side rotate towards the right. In other words Küstner states that the motion is comparable to supination of the hand on the side in question. He considers a right spiral like that of a corkscrew and a left one the reverse. I think most of us would speak of a right twist as one in agreement with the course of the hands of a clock and a left one the reverse. In that sense the usual twist of a right-sided tumor would be towards the right, that is, as if the right hand was moved into supination. However one regards the terms right and left as applied to rotation of tumors, the fact remains that Küstner's law is applicable to the vast majority of torsions of the pedicles of ovarian tumors, although it does not so frequently apply to torsion of the pedicle of tubal or uterine tumors.

Clinically the points of diagnosis are fairly typical. The previous existence of a tumor is a most important and often necessary diagnostic point. Often there is a history of exertion or some slight accident like a fall or a blow. There is a sudden sharp pain usually on the side of the abdomen in which the tumor takes origin. Instances are recorded however, two by Delore, where the pain and the bulk of the tumor were on one side while the twisted pedicle took origin from the opposite side. The pain often radiates downwards from the tumor along the inside of the thigh of the affected side, sometimes into the lumbar region. The tumor rapidly increases in size and becomes very tender on pressure. There is usually more or less severe and persistent vomiting, often as bad as that accompanying obstruction of the bowels. In most cases there are signs of shock. Later come signs of peritonitis. Moul's and Reboul describe two pathognomonic signs, namely, a systolic murmur at the tender point and pulsation movement of the tumor synchronous with the beat of the heart. Kober reports a case from Pfannenstiel's clinic where hemoglobin-

uria was a prominent symptom.

In considering the differential diagnosis the first disease which comes to mind is appendicitis, with which torsion of the pedicle of a pelvic tumor is likely to become confounded. The sudden pain, the shock, the rigidity of the rectus muscle of the affected side, the vomiting, the signs of peritonitis and the local tenderness are sometimes very confusing. Vaginal examination will in most cases clear up the doubt. The partial twists which are characterized by intermittent symptoms, give a clinical picture similar to that of the intermittent paroxysms of appendicitis. Pinatelle reports a case of a young woman who had complained one year of recurrent attacks of pain on the right side of the lower abdomen with vomiting followed by meteorism. The diagnosis was appendicitis, but operation showed a small ovarian cyst of the right side with torsion of the pedicle ( $180^\circ$ ) and with adhesions to the appendix. Numerous cases are recorded where appendicitis and torsion of the pedicle of a pelvic tumor co-existed.

Tubal pregnancy may give some uncertainty in diagnosis. The absence of any cessation of the menses, the less marked signs of hemorrhage and the less emphatic signs of shock in torsion, as well as finding an increasing tumor instead of a diminishing one will aid in the distinction. Ruptured cyst will usually lack the degree of shock incident to sudden torsion. Of course the history will tell a contrary story in that, with torsion, the tumor quickly becomes larger while, with ruptured cyst, it becomes immediately much smaller or disappears. If not infected there will be no subsequent signs of peritonitis as in torsion. Probably nearly all the so-called inflamed cysts are really cysts whose pedicles have twisted. Any cyst may become infected and suppurate, especially a dermoid. The symptoms of such

a trouble would be slow in developing but would resemble those of rotation with gradual strangulation. Indeed the commonest reason for suppuration in such cysts is probably torsion itself.

Movable kidney may itself rotate so as to twist its pedicle, especially enough to kink the ureter and cause acute hydronephrosis, with symptoms often comparable to those of torsion of the pedicle of a cyst. If the dislocated kidney lay very low it might even be mistaken for a cyst of pelvic origin. Volvulus, which is of course a kind of torsion of pedicle, when lying low, may give symptoms and even physical signs similar to those of torsion of a pelvic tumor.

When we come to distinguish, in a case of torsion of the pedicle, between ovarian, parovarian, tubal or uterine torsion we approach a refinement of diagnosis often impossible and seldom practically important. Ovarian tumor is by far the most common to undergo this accident. In the absence of previous knowledge of the kind of tumor the distinction between ovarian, tubal and parovarian torsion is generally merely presumptive. In Storer's series of 62 cases of torsion of the pedicle of a tubal tumor, the diagnosis of torsion was made before operation in 37, but in only one was it claimed that the tubal character of the tumor was recognized.

As to prognosis it may be well to refer to Aronson's figures. Of 26 cases not operated upon, there was a mortality of 81%; of 36 cases operated upon, there was a mortality of only 17%.

The specimen which is before you has been reduced about half by immersion in the fixing solutions. It represents a dermoid of the right ovary to which the tube is attached containing a creamy and bloody fluid at the time of removal, sebaceous matter and considerable blond hair. There was probably an infection of this dermoid before or after the torsion and the creamy material seems to be pus. The walls of the cyst are from one quarter to half an inch in thickness and are filled with extravasated blood, which gives the dark blue color to the specimen. This tumor I removed from a young married woman who had borne two children. The patient called Dr. C. H. Francis on account of lumbar pains of a severe neuralgic character. Under a small dose of morphine the pains subsided during the night. The second day she complained of severe attacks of pain, especially in the right side of the lower abdomen. A tumor had some time previously been observed in the pelvis and seemed to be about as large as a duck egg. On examination at this time it was found to be as large as a large orange and well packed down into the cul de sac of Douglas. Operation by the median incision was performed after essaying a diagnosis of a twisted pedicle of an ovarian tumor. A large blue tumor of cystic character was found behind the uterus well down upon the pelvic floor. The pedicle was twisted according to Küstner's law by three rotations. The circulation seemed entirely cut off. Removal was easy and the patient made a rapid recovery.

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## PRACTICAL SUGGESTIONS FOR THE LIMITATION OF PUERPERAL INFECTION\*

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*Statistics.* The best available statistics concerning puerperal infection are said to present a mortality less sombre than the actual facts. Williams mentions the investigations of Boxall and Byers, who found that outside of the lying-in hospitals this preventable scourge claims as many and perhaps more victims than it did twenty or even forty years ago.

The Berlin Society of Obstetrics and Gynecology arrived at the conclusion that from ten to fifteen per cent of the deaths occurring in women during the period of sexual activity were due to "child bed fever," and that this disease destroyed nearly as many lives as small-pox and cholera. Max Boehr, in his famous statistics, estimates that one-thirtieth of all married women in Prussia die in childbed.

Ingerslew states that at the present time in Denmark, with the single exception of tuberculosis, puerperal infection is the most frequent cause of death in women between the ages of twenty and fifty years.

Bacon, in an article based upon uncertain records obtained from the health department of Chicago, gives a mortality for puerperal sepsis of 7.3 per cent of all women dying between the ages of twenty and fifty years.

Williams says one cannot be guided altogether by the mortality statistics, inasmuch as the largest proportion of

puerperal infection cases do not end fatally, but present later as difficult gynecological problems.

*Organisms.* The more important bacteria present in puerperal infections are the streptococcus, bacillus coli communis, gonococcus, and bacillus aerogenes capsulatus.

These pathologic organisms are fortunately only found occasionally in the vagina and uterus prior to delivery, and are therefore necessarily acquired.

The material found in the vagina is not a true secretion, as it is composed of secretions from the cervix and uterus, exudates containing exfoliated epithelium and leucocytes. The reaction of this fluid during pregnancy is markedly acid—incidentally this may be said to prohibit coition during the latter months of pregnancy.

The body of the uterus is normally free from microorganisms. Stroganoff found the bacteria of the vagina extending up to the mucous plug of the cervix, but not penetrating it, and experimentally proved the mucus an unfavorable environment for bacteria. A true infection may result from penetration of the uterus by any of the pathogenic bacteria.

*Classification of Infections.* Spiegelberger has given a classification of puerperal infection which serves excellently to emphasize the principal points to which inquiry should be directed.

1. Inflammation of the genital mucous membrane.

\*Read before the Michigan State Medical Society and approved for publication by the Publication Committee.

2. Inflammation of the uterine parenchyma.
3. Inflammation of the peritoneum.
4. Phlebitis uterina.
5. Pure septicaemia.

It is easily true that the inflammations of the first class, which are confined to the vagina-'endocolpitis'—are more frequently present than those of the uterus-'endometritis'.

The majority of infections by way of the vaginal mucous membrane occur through lacerations and bruises. To prevent these ports of entry or areas for the lodgement and growth of pathogenic bacteria is one of the chief duties of the accoucheur.

Whether conservative or active measures are to be followed in each given case is a question of careful and experienced judgment. Too often the mere delivery of the child is the only consideration. An hour is saved at the time of delivery and a dozen hours are used later in caring for artificially what nature would have done safely in that one hour.

Different workers have formulated rules as to when aid should be given in the second stage of labor. Croom would allow no multipara to be in the second stage more than three hours and no primipara longer than four hours.

The rule of allowing no case, when in the second stage, to labor longer when no progress has been made for one hour is applicable, like Croom's and all other rules, only in a general way. It may be said that the average practitioner does not wait long enough, while the midwife and the persistent opponents of instruments wait too long. Incidentally, I might say that instruments in the hands of most men are potent factors in the causation of tears. Yet, delayed labor is a cause of puerperal fever, because the tissues become bruised and therefore incapable of normal resistance. It is better to have insignificant tears which can be accurately approximated and a good

cement repair effected in 24 to 48 hours, than a large devitalized area with probable sloughing and unhindered invasion during the necessary decubitus.

Of all the single factors in the prevention of puerperal infection, "providing that ordinary cleanliness has obtained," the accurate approximation of all lacerations with absorbable suture material is to my mind most important.

It is not an easy task to properly examine and make satisfactory repair of all tears immediately after delivery unless the conditions are made convenient.

First of all, delivery should be made upon a table, with a convenient good light. All parts must be carefully palpated and, if possible, made convenient for ocular inspection. The sulci should be most carefully examined.

In my experience repairs made with plain number 3 catgut give best results. When any but animal membrane is used for sutures, there will be considerable drainage around the sutures, causing frequent infection of the approximated walls.

The hands of the obstetrician and the portio-vaginalis should receive the same preparation, and there are no agents so effective as good liquid soap and hot sterile water. It is a good plan to use at least five minutes for each, and much longer if the parts are dirty. A thick lather should be repeatedly made by vigorous rubbing with gauze. The utmost care should be given to most thoroughly cleansing the vulvar folds, clitoris, and area of the vestibular glands. The ducts of these glands frequently harbor gonococci. On account of unfortunate habits there will frequently be found a variety of pathogenic bacteria about the clitoris, the finger nails having served as the carrier of the organisms.

After the free use of water and soap, the hands and genitalia should be frequently bathed with a 1 or 2 per cent solution of any one of the cresylic acid

preparations, like cresylone, lysol, etc. A lasin containing this disinfectant solution should be near at hand so that convenient and frequent applications may be made.

It is now the consensus of opinion that antepartum and postpartum douches increase the liability to infection. A thorough preparation of the portio-vaginalis is the best factor for the prevention of infection.

It is with the genitalia of some patients as with the hands of some practitioners—the personal equation is almost unsurmountable. A patient whose habits are uncleanly should receive specific directions for self preparation, and failure of compliance therewith should place a heavy responsibility upon the patient, and knowledge of this should not be withheld from her. The accoucheur is not always to blame for infections, though custom has decreed it thus, and the sensitive conscience of the obstetrician has appropriated the opprobrium. Apropos of this is the following case: A. M., during an absence of his wife from home, acquired gonorrhea. In due time he infected his wife, who was eight months pregnant. In a brief time their little girl, two years of age, and her cousin, a little girl of three years, who was her playmate and lived in the same house, became infected. On May 11th I attended the mother in a normal confinement. In four days the child developed ophthalmia in one eye, notwithstanding the free use of a 25 per cent solution of argyrol. Simultaneous with the ophthalmia a specific vaginal discharge began in the infant. The urethra of the mother has been actively reinfected and urination after the third day from confinement is difficult and painful. The case is an extreme example which will illustrate where responsibility should rest.

The routine use of gloves is one of the most important considerations in preventing infection. In all cases where gloves are not used the history of the

hands should be intimately known. Any man doing aseptic surgery and obstetrical work of this class should be at all times face to face with his personal responsibility. The pathogenic bacteria found in puerperal infection should be frequently brought in mental review. The possible and natural culture media, with the mode of transmission of each, should be "finger end" knowledge with all who do midwifery.

It is well to bear in mind always that the habitat of the bacillus coli communis, by virtue of its proximity to the birth canal, is an easy source of infection. The rectum and sigmoid should be emptied about three hours before completion of the second stage of labor.

The average careful practitioner is perhaps most apprehensive of fatalities from gonococcic infection. The well-known latency of this disease, with its widespread prevalence, make for the necessity of great watchfulness. The most rigid attempt should be made to disinfect the areas of the vestibular glands. The repair of lacerations should be promptly and thoroughly done; drainage should be aided by elevation of the head of the bed.

The whole question of limiting puerperal infection is not by any means confined to the patient and physician.

There is no nursing of either the professional or non-professional type that so inadequately copes with serious responsibilities as does that of obstetrics.

The obstetrical nurse is necessarily a third factor in the responsibility of infection, and under the present prevailing conditions the best we can do is to insist upon her following such directions as are within her capabilities.

In conclusion, the subject may be summarized in its three parts, which are: division of responsibility; knowledge of the requirements of prevention; and persistent vigilance in resistance to the pathogenic bacteria of its causation.



## THE DIAGNOSTIC IMPORTANCE OF BLOOD IN THE STOOLS\*

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The idea of the author in bringing before the section in general medicine a paper with the above title, is to emphasize the extreme importance, from a diagnostic point of view, of local rectal hemorrhage. It is the general practitioner, not the specialist, who is first consulted by the patient, and to whom I wish to address these few remarks.

There is probably no one symptom which causes the patient to seek the aid of the proctologist more often than that of the loss of blood with the stool, and yet a much larger number of patients, who suffer the loss of more or less blood with each defecation, make their own diagnosis of "hemorrhoids" and treat themselves with advertised proprietary remedies and only seek the advice of their family physician when they find that they are "getting no better quite fast."

In my own experience in this line of work, I have had so many patients sent to me with a diagnosis of "some rectal trouble, probably piles," who upon examination have been found to be suffering from serious and sometimes incurable conditions, that I have felt that it would not be amiss to recall to this society at this time, some of the other conditions, far more grave, whose first danger signal consists of the loss of blood with the stool.

It is perfectly astonishing to one who has given the study of diseases of the lower digestive tract some special atten-

tion, how many physicians take it for granted that when a patient comes complaining of bleeding with the passage, with or without pain, that that patient is suffering from hemorrhoids. Usually there is no attempt at a local examination at all, or a simple digital examination has been all that has been attempted. I wish to state here and now, that no physician has commenced to do his duty to his patient, if that patient gives the history of the loss of blood, even in minute quantities; if he does not make a thorough and complete proctoscopic examination and determine the source of the blood. If the physician is too busy, or if such work is distasteful, then he should call in the aid of the proctologist; and I wish here to parenthesize that since the proctologist has come into existence and has divorced the study and special treatment of the diseases of the anus, rectum, and colon, from general surgery and medicine, the early diagnosis of commencing malignant disease, and more scientific and careful treatment of diseased conditions of these portions of the human economy in general, have been made possible, and today the leading colleges and hospitals have made provision for departments of proctology.

I will limit myself in this paper to the discussion of those diseases of the lower bowel, which give warning of their onset by the appearance of hemorrhage, which is usually detected first by the patient. I do not intend to discuss such diseases as general tuberculosis, syphilis, malaria, typhoid fever, gastric and duodenal ulcerations, the various intoxications,

\*Read at the 42nd Annual Meeting of the Michigan State Medical Society and approved for publication by the Publication Committee.

metallic poisoning, the high-up neoplasms, or other conditions, which on account of the higher origin of the hemorrhage, gives rise in most instances to dark colored almost black fluid and clots. The blood in these cases is intimately mixed with the fecal mass, which may be solid, or as is more often the case, liquid. The above named conditions, however, have been diagnosed long before any appearance of blood is manifest with the stools. Neither will I attempt to discuss those diseases which give rise to occult blood in stool, for the reasons given above. However, there are so many conditions which give rise to fresh blood, or hemorrhage of the bright red type, which are not diagnosed, without proctoscopy, that I will limit myself to the discussion of the local diseases of the rectum which may cause such hemorrhage.

As I have said above, hemorrhage is one of the most frequent warning signals in rectal disease and often the first indication. It is more common in adults than in children. The bleeding may be very profuse, or very slight, and may occur during defecation or during intervals, or both. The blood may be discharged either liquid or clotted and may be mixed with mucus, pus, feces, or other debris. Fresh blood discharged per rectum is usually from a local hemorrhage but may have descended from the colon or sigmoid. The darker in color the blood, the higher in the bowel its source. Rectal hemorrhage may be caused:—(1) By local disease; (2) traumatism; or (3) following operation. The cause of the last is so evident that it will not be considered, and trauma will simply be mentioned. The local diseases of the rectum which may cause hemorrhage are:—(1) Internal hemorrhoids. (2) Prolapse. (3) Fissure. (4) Ulceration. (5) Stricture. (6) Malignant Disease. (7) Proctitis. (8) Fecal impaction. (9) Polypus. (10) Villous

growths. (11) Chancroids and chancres. (12) Condylomata. Other diseases causing local rectal hemorrhage are:—(1) Amoebic dysentery. (2) Intussusception. (3) Embolism of mesenteric artery. (4) Congestion of the portal vein. (5) Scorbatus.

The bleeding from internal hemorrhoids is slight, unless the wall of a large vein is ulcerated through, or ruptured. It is usually venous and is brought about by straining during stool. It may amount to a few drops and only be detected by the patient on the toilet paper after the movements, or it may be more profuse and continue for a long time. Patients have become almost exsanguinated from loss of blood from internal hemorrhoids. In some instances the blood has the appearance as coming from an arterial source and I have seen it spurt out in jets during anoscopic examination for internal hemorrhoids.

Prolapse may or may not be accompanied by hemorrhage; it is only in those cases where the prolapse has remained outside for some time, or has to be frequently replaced, that bleeding occurs. When bleeding is encountered in these cases the patient will usually tell you that he is suffering from hemorrhoids and it behooves the medical man to examine for himself. It is in cases of fissure, however, that physicians are often led astray, in fact I have had a number of physicians as patients during the past year, who have suffered from fissure, and some of them aggravated cases, where they had made their own diagnosis of bleeding internal hemorrhoids. The small superficial fissures bleed but little and sometimes the only indication of their presence, outside of the symptom of pain, is a streak of blood on the side of the stool, or a drop or two following its passage. When the fissure is deeper or more extensive the bleeding following the passage of the stool is accompanied by great pain, of

excruciating cutting character, accompanied by tenesmus and spasmodic contraction of the sphincter which lasts for some time. The symptom of the blood-streaked stool is almost pathognomonic of ulceration of the rectum, anus and lower colon, and is perhaps, next to internal hemorrhoids, the most frequent source of hemorrhage and is almost invariably accompanied by diarrhoea. In fact the writer has repeatedly discovered the source of an intractable diarrhoea, upon proctoscopic examination, to be an ulceration. Various urinary reflexes, as well as many cases of pruritus ani and sharp pains along the sciatic nerves, have been relieved by the cure of rectal or sigmoidal ulcerations. Sometimes the appearance of the blood clot will give a clue to the diagnosis of ulceration. The clot which is smooth on one side and roughened on the other is usually from the site of such an ulceration. The amount of hemorrhage depends upon the extent of the ulceration and the size of the vessel involved, yet it is astonishing how many cases of very extensive ulceration can go on with very small loss of blood. In cases of rapidly spreading syphilitic malignant or tuberculous ulceration, the hemorrhage is often so profuse as to be positively dangerous.

One who does not meet with many cases which require ocular inspection of the rectum will be astonished at the number of cases of ulceration of some form or other, and very frequently the extent to which such ulcerations can go on, without the patient knowing of their existence, except from hemorrhage. One other important point to remember with rectal disease, is the fact that many diseased conditions of the rectum are not accompanied by pain until they are far advanced.

Stricture of the rectum is much more frequent than is supposed. It has been a revelation to me how many patients suffer with stricture without their knowl-

edge. Only a few weeks ago a woman was brought to me by her physician for operation for bleeding internal hemorrhoids, and when I went to make a digital examination I was unable to do so on account of a stricture so far advanced that I was unable to insert my finger. This woman had been taking cathartics for a long time, had always bled at stool, and only came for relief because her passages were getting painful. There was no history of any constitutional trouble and it was evidently a case of simple cicatricial stricture, following extensive circular ulceration of the bowel, of which she was unaware. I not infrequently see cases of cicatricial stricture follow clamp and cautery operations for hemorrhoids, and Whitehead operations. It is on account of the frequency with which these strictures are met, that the clamp and cautery and Whitehead operations are not employed by the author.

The blood from stricture is mixed more or less with pus, and mucus. If the patient has infrequent bowel movements, a coffee ground appearance is sometimes met with in these conditions.

The most important condition, however, which makes itself manifest first by rectal hemorrhage, is malignant disease; and it is in this condition, above all others, where an early complete ocular inspection will save lives. It is the same with malignant disease, in this part of the body, as in all others. If the surgeon can get them early enough he can relieve them with some hope of permanent cure, and inasmuch as rectal cancer is low, the early operation is productive of much good. Some of the early symptoms of commencing cancer of the lower bowel are:—tenesmus, constipation alternating with diarrhoea, flatulence with colicky pains and slight hemorrhage. The nearer to the anus, the cancer, the earlier the hemorrhage, on account of the damage by the feces. Loss in general health is not an early

sign of rectal cancer. The Indican reaction is usually present in the urine, in cancer; while it is absent in ordinary diarrhoea; accompanied by colic, etc. Persistent diarrhoea accompanied by even a slight hemorrhage is always suggestive in cases which seem to be simple colitis, and should call for an examination with the proctoscope and sigmoidoscope. When one considers that fifty per cent of all cancers occur in the gastrointestinal tract and when one realizes that sixteen per cent of all cancers of the digestive tract occur in the rectum or sigmoid, one realizes the importance of examining every case which presents the history of rectal hemorrhage, however slight, and no matter the age of the patient. Cases of cancer well authenticated have been found in patients as young as fifteen.

Boas found in five hundred cases of cancer of the digestive tract, eighty-three rectal cancers; showing how much more frequent cancer is prone to locate in this part of the body than is generally supposed. In my own practice I have frequently had patients brought to me in the forties with a history of rectal hemorrhage, impeded bowel movements and digestive disturbances, where examination with the proctoscope and sigmoidoscope has shown almost complete occlusion of the lumen of the bowel and too far gone to extricate. The best that could be done was to do a colostomy and give them a temporarily longer lease of life and leave the growth untouched.

Polypi rarely bleed, and only when they are large and protruded. Digital examination is usually sufficient to make a diagnosis. Villous growths are rare, but bleed freely and especially during defecation. There is considerable hyperemia of the mucous membrane of the colon in the first stage of colitis or dysentery. I may say in passing that streaks of blood in the stool are usually a warning of impending hemorrhage in

typhoid fever.

When proctitis is far advanced the mucosa is covered with pin-point ulcers or polypoid excrescences, which become detached causing more or less hemorrhage.

In fecal impaction, when the mass has been retained for a considerable time, pressure necrosis may be caused; or scratching, tearing or scraping of the mucous membrane in the passage of the mass may cause hemorrhage. Hemorrhage, however, in these conditions usually follows the expulsion of the scybalous mass, therefore is not of great importance in diagnosing these conditions.

Chancres and chancroids of the anal region bleed slightly, and it is well to be on the lookout for other symptoms of syphilis, when the appearance of blood calls your attention to the hard sore situated in the region of the anus.

Condylomata, surrounding the anus, are usually injured by the fecal passage, causing a slight bleeding, but the hemorrhage is apt to be persistent. In children often bleeding will be the first intimation that one has, that a foreign body has been swallowed. It has always been an astonishing thing to me that pins, buttons, coins and other articles can travel through the entire intestinal tract and reach the rectum without having done some damage, as is usually the case, and then cause pain and hemorrhage only when they come in contact with the outlet. In insane patients one often finds foreign bodies, which have been thrust into the anus, to be the cause of rectal hemorrhage. I have repeatedly removed small pieces of bone, pins and even bits of china which have been swallowed and which were causing hemorrhage and pain.

It will be seen through what has been rather imperfectly brought out that there are many other conditions which give rise to the appearance of blood with the stool, other than hemorrhoids, and it be-



hooves the practitioner of medicine to be on his guard and to examine carefully and thoroughly the anus, rectum and sigmoid of their patients who present the history of even very slight hemorrhage.

If I have convinced one of my auditors of the importance of hemorrhage, not

accompanied by pain or other symptoms, as the early warning signal in commencing cancer, and have been instrumental in causing a practitioner to examine one case in which commencing cancer is discovered in time to remove, I feel that this feeble effort has not been in vain.

604 Washington Arcade.

#### Discussion.

**Dr. J. B. Herrick**, Chicago, said that he was very much interested in the doctor's instructive paper. He realized that it was very easy to neglect to make a thorough rectal examination. It has been said that the consultant was simply called to make the rectal examination. He wished to impress the importance of this examination in cases of severe anemia. Cases are not at all rare which show the picture of primary anemia which are caused by a local rectal trouble.

**Dr. Dickinson**, Saginaw: If we will all remember that rectal bleeding does not always come from internal hemorrhoids, we will carry

away a very practical point.

**Dr. Flintermann**, Detroit, said we should never neglect to examine the rectum. Frequently he has seen cases apparently very obscure, where the rectal examination explained the cause of the trouble. This was especially true in severe anemia.

**Dr. Hirschman**, Detroit, said that he would be satisfied if he had made his hearers feel that symptoms of bleeding from the rectum were not always due to internal hemorrhoids. This symptom should always be investigated. A thorough rectal examination made and lives will be saved

### IS THE OBSTETRICIAN PROPERLY CARING FOR AND BEING CARED FOR, IN OBSTETRIC PRACTICE?\*

A. N. COLLINS, M. D.,  
Detroit

The importance of great care in the delivery of primiparae I think none of several years' observation will question. My gynecological friends will bear me out in the assertion that a large proportion of their cases in gynecological work come to them with a history of difficulties dating from their first labor. From the very nature of this tremendous ordeal in a woman's life we cannot hope to more than modify this lamentable history. In no branch of medical effort are

consequences more far-reaching and influential in making for the weal or woe of a family intrusted to the medical man than in obstetric practice. If by more care, more patience, more gentleness, or more knowledge of whatever kind, we can render this ordeal safer and less productive of deleterious effects, our time is well spent in reviewing this old and commonplace subject.

In the whole State of Michigan nearly all of this work is done, as must of necessity be, by the general practitioner—the man who does the real hard work

\*Read at the Forty-second Annual Meeting of the Michigan State Medical Society and approved for publication by the Publication Committee.

of the profession. In our larger cities a few men and women give this subject special attention, usually and very properly in connection with gynecology. We need more men in every community who give more attention to this branch of medicine. I feel that I do not go far wrong in saying that in obstetrics, development and better methods have not kept pace with other subjects—certainly not with surgery. The subject is, as it were, crystallized—wrong methods are repeated without sufficient attention to improvements. There are reasons for this which I will mention later.

In this short paper I will confine myself to relatively uncomplicated cases, as a very large proportion of cases are uncomplicated, by the infrequent serious conditions, such as contracted pelvis, hydrocephalus, etc.

We of this generation have a responsibility in obstetric practice largely unknown to those of earlier times. The complex civilization of today has produced women more vulnerable than the simple life of our grandmothers. I believe our responsibility increases in direct ratio to the so-called social and intellectual status of our patients.

A slight injury to the pelvic organs of a highly sensitive well-developed nervous organization will disarrange and render ataxic the sensitive machinery more than will a complex laceration with marked procidentia the laboring Polish woman with vital forces unimpaired. I would impress upon every practitioner in Michigan his responsibility in the care of a pregnant woman. Two lives may be dependent upon his care and skill. The happiness and well-being of a family, a nervous wreck consulting the gynecologist, or a victim of sepsis, may follow an error of management. We can never hope in all cases to have the proper conditions surrounding the lying-in woman. In a great many cases, of necessity ideal conditions are not possible.

First—If we are to answer this query in the affirmative, after seeing that our patient is brought to full term in as good physical condition as the circumstances will permit, in all cases when possible, a competent nurse should be insisted upon. The best accoucheur is powerless if as soon as he is away the patient becomes infected. You may say so many patients cannot afford to pay for a competent nurse; true, some cannot, but the proportion would be greatly reduced if they were made to see that they could better afford to pay a nurse than the possible expense of a funeral or years of invalidism. Present the subject in its true light, and many more will choose the nurse, and respect the doctor who at least tries to do his duty and properly care for his obstetric cases. No man in Michigan can properly care for obstetric cases without an intelligent nurse who has grasped the incurable dangers of sepsis. If no such person can be found, spend half an hour in fervid and heartfelt oratory to the most available person on the subject of absolute cleanliness and the horrors of sepsis, and you can make a trained nurse to order while you wait.

Second—One of the most prolific causes of injury and danger is too rapid delivery. By too rapid delivery I wish to be understood as the forcing of the child through the parturient canal before the protective changes in the opposing tissues have been brought about by time and interrupted pressure. This too rapid delivery may be excessive natural effort or injudicious artificial effort.

To properly and wisely guard against injurious haste in labor, we need to firmly fix in our minds the time required for natural labor.

From my observation of the frequent errors of early interference, with their disastrous effects, I would emphasize this point of time above all others that enter into the answer to our question. We need a definite knowledge of the

average time of normal labor. We must take into consideration the ever-varying individual peculiarities, and consider that one patient may need hours, while another may need only minutes, for certain changes to take place. Each case has a normal period of time distinctly her own, which again may vary with each confinement.

Notwithstanding these several personal variations, from a study of large numbers of cases we arrive at fairly satisfactory conclusions as to the time required to safely and conservatively complete the process, with the least possible offense to the tissues so commonly injured.

Hirst states that the average duration of all labors is from twelve to fifteen hours; in primiparae from twelve to twenty-four hours.

In the commonly quoted five hundred and six cases of Spiegelbergs' the three stages are given for primiparae as:

Stage of dilatation—fifteen hours.

Expulsion—two hours.

Third stage—one half hour, or seven-ten and one-half hours.

Multiparae:—dilatation—eight hours.

Expulsion—one hour.

Placental—one-half hour, or nine and one-half hours.

I repeat, a proper conception of the long time required to bring about a condition of the parts for safe delivery without unnecessary injury to the structures and supports of the parturient canal is the keynote of successful and safe obstetrics.

My observation and experience at the bedside lead me to assert that more damage is needlessly done from a failure to remember that the nominal period of dilatation for primiparae is fifteen and maybe thirty-six, or even more hours, for that particular case, than from any other one cause. I am satisfied that many a woman is sacrificed or unnecessarily injured and invalidated from the

failure of her attendant to realize the necessity and value of time to bring about the physiological changes, indispensable to safe delivery. Abnormal conditions may demand violent abuse of organs as the lesser of two evils, but I am not discussing abnormal conditions. We must not, with our anaesthesia and our forceps, force these delicate structures to dilate and stretch to their utmost and beyond, before they have been prepared for the task by hours of natural effort. The process of dilatation of the cervix, obliteration of the cervical canal, relaxation of the lower uterine segment is a slow process in many cases. If given time, the physiological action of the longitudinal uterine fibers from above against a conical wedge within itself is a very different process from a force pulling from below against nothing but the supports of the uterine body and parturient canal. I quote from a former paper on this subject. This dilatation can, by no mechanical means known, be so safely accomplished as by the physiological processes attending the phenomena. A certain degree of edematous infiltration of the lower segment results from these paroxysmal contractions and relaxations, which require time. This infiltration permits relaxation without laceration.

In the second stage of labor, in preparing the pelvic floor, vaginal outlet and perineum for the great distention that is to come, this infiltration is undoubtedly of the greatest value in permitting a relaxation without rupture. This process of infiltration requires time.

In the second stage—in primiparae especially, without very clear indication of a necessity for hasty delivery, we should permit all the protective processes of infiltration, distention and recession and gradual paroxysmal effort ample time to prepare for the stretching that must otherwise result in lacerations. How unwise and how unscientific, then,

does it become to apply the forceps before we have the best possible obliteration of the cervical canal and lower uterine segment which terminates the first stage of labor. Yet how often are forceps applied as soon as sufficient dilatation to admit of their application is secured, and how deadly wrong it often proves to the patient.

To apply forceps high up before the head has entered the brim, or descended into the excavation, even with a well dilated or dilatable lower segment, is a dangerous procedure. I quote from the American Text-book of Obstetrics: "It should be resorted to only in exceptional cases. The higher the head the more dangerous the procedure." How much more dangerous to apply high forceps before we have a proper dilatation and exert the force often applied to the pull upon a lower undilated uterine segment. We are dragging with all the force exerted upon the uterine ligaments, the round ligaments, lower part of the broad ligament, and the uterosacral bands. If the bony structure of the pelvis resists us, we then endanger the anterior supports of the bladder, urethra, and vagina. If our efforts are successful in dislodging the head from the rapidly dilated or torn lower segment, what then occurs if we continue the delivery? We bring the head down upon the pelvic floor and perineum to the second stage of labor. This stage requires normally two hours, and may normally require six. Do we sit there from two to six hours and permit a proper relaxation of this pelvic floor? We should, if we are to properly protect our patient. As a rule, when the forceps are on the process is continuous and the delivery completed within an hour or less. The results are unnecessary injuries. We have forgotten the element of time in the second stage.

I would impress the fact that a wo-

man once injured by hasty delivery cannot by any process be perfectly repaired. The surgeon can fairly well readjust the torn tissues within reach, but tissues above and beyond our reach are injured. We can at best make but an imperfect repair; we cannot reach the upper margins of the torn supports.

Recognizing the impossibility of complete restoration, it becomes imperative that we use every means at command to prevent a condition being brought about incapable of repair. Do not understand me to criticise haste and violence even, where these are the lesser of two evils, as sometimes occurs. I wish simply to emphasize the dangers of rapid delivery which are real and not fancied. We should not permit a woman to die of exhaustion; but the proportion of women dying of delayed labor is small compared with that of those invalidated for life, or dying from precipitate artificial delivery.

The obstetric forceps is one of the best adjuncts in protecting our patients when indicated—and when properly used—but I am convinced they play a very important and harmful part in many of the hasty deliveries that do injury. I would impress upon all in this discussion the indications for their use as laid down in the American Text-book. If used only when indicated they are a boon; when not indicated, they are an unmitigated curse.

We need frequent repetitions of these indications for their use:

First—Indicated in lingering labor, when the natural efforts are unable to effect delivery.

Second—When speedy delivery is imperative in the interest of the mother; as in hemorrhage, exhaustion, convulsion, advanced cardiac or pulmonary diseases, etc.

Third—When speedy delivery is indicated in the interest of the child, as in



impending death of the mother, or threatened asphyxia of the child.

Used when indicated, I have no quarrel with the obstetric forceps, but, used as they are in Michigan today, I repeat, they are sadly in need of condemnatory language unfit to publish. I would emphasize again their great possibilities of injury, and register an opinion that we are using them far too frequently to do our whole duty in properly caring for our obstetric cases.

Doctor John W. Clark in his "Résumé of Prolapsus"—*Progressive Medicine*, June, 1905, expresses the facts on this subject of hasty labor:

1. Never encourage a patient in labor to bear down until nature excites this inclination.

2. The use by the patient of tractors to increase the voluntary expulsive efforts is questionable.

3. Never apply forceps without complete dilatation of cervix. When a more precipitate delivery is necessary, it is best to incise the cervix."

We need not see so many cases of prolapsus with all its attendant evils if we determine to eliminate, by all means at our command, the precipitate and artificial deliveries.

Never use forceps without a positive indication. Secure a gradual passage of the head through the lower segment, vagina, and over the perineum. The prevalent use of artificial force, the habitual use of the forceps without positive indication for their use, the rapidity with which labor is consummated by these artificial means with the train of evils that follow this departure from natural physiological law, is what I would condemn.

The query: "Is the obstetrician being properly cared for?" is an important part of our discussion. I have stated that obstetric practice has not developed *pari passu* with surgery. Why? The obstetrician is not proportionately paid for

his arduous labor and great responsibility.

There are men in the larger cities who demand a proper remuneration for this work. They largely have made the advances. We are a commercial people. If great steel ships pay, they are developed; if powerful engines pay, they are here; if the newspapers pay, they are at our door when we get up; if automobiles pay, we are supplied, and so on through the whole range of human endeavor.

I venture the assertion that for the real wear and tear upon the physician, for the skill and knowledge required, time spent, sleep lost, and interference with normal living, no branch of medical service is so inadequately remunerated, taking all the physicians of our state collectively. There is no good reason for this in the logic of events. Why is it so? I would like to hear it discussed; possibly someone can tell me; I do not know. Why our state fee bill should put a fee of ten to twenty-five dollars on an obstetric case, and the same amount for circumcising the baby, I fail to comprehend. Personally, I would prefer to circumcise a whole flock of labies to attending one primipara, in so far as responsibility, fatigue, skill, danger, or anything else is concerned.

I would even prefer to choose my time for doing it and remove an appendix, or operate upon a hernia, to being on the *qui vive* for a week, and then going at 11 p. m. and spending the night laboring over a difficult and dangerous obstetric case. Either of the former would not much question a fee of a hundred dollars; but how many of us have the courage to ask that for the latter job? I say "job" advisedly; it is a job. Can not we, as a profession, here in Michigan, do something to correct this? Our fee system is wrong. You are asked how much do you charge for a confinement case. You state your price. I say You—I do not. As well ask you how

much you would charge for a typhoid fever case, or pneumonia, or any other ailment. You may have to make six or sixty visits, you cannot say. Why job lot it, then? When asked that question, we should state a fee for the confinement—no danger of getting it too high—and say I charge so much per visit; if you know how many it will require you can figure it out—I do not; and further, as to the fee, that will depend upon how long I have to stay and what I have to do, just the same as the plumber. This fixing a definite sum for a very indefinite undertaking is certainly not logical, and to the man who has not the prestige and reputation which enables him to fix a fee large enough to cover all contingencies, does a great injustice many times.

If the patient requires much service and many visits, or if the responsibility is great, we should get our pay. If the patient requires few visits, it is an injustice to charge them for what they do not get. So to charge by the visit, and with a more or less fixed fee, will be more satisfactory and fair, and almost always net the physician more money and be more cheerfully, because more equitably paid. This would be an advance over the practice now prevalent.

In conclusion, let me repeat the old adage, "the laborer is worthy of his hire," and let us resolve to claim for this arduous and responsible service to our patients, to whom this expense comes at most but a few times in a lifetime, better compensation than now prevails.

#### Discussion.

**Dr. Williams.** The forceps are used too often. Many cases of severe lacerations of the cervix are due to the unnecessary use of the obstetric forceps.

**Dr. Elliott.** To properly care for obstetric cases a nurse should be employed on all occasions when the patients can possibly afford it. In the country people do not realize the value of a nurse's services and it is often impossible to convince them that an obstetric nurse is at all desirable.

**Dr. Burleson** stated that it was his custom to have a large quantity of clean pieces of cloth prepared and baked to use as vaginal dressings after confinement.

**Dr. Manton.** The efforts to have an obstetric nurse for all cases are laudable. However, it

has been his experience that as soon as a nurse qualifies herself for obstetric work she wants too high a fee. Regarding the frequent application of forceps Manton believes there is no harm done if they are properly used.

**Dr. Collins,** closing. All tears of any size should be repaired. It is very often of advantage to wait a few hours until proper surroundings and assistance can be obtained. Collins believes that the forceps are dangerous instruments in the hands of average practitioners. There is always a temptation to use them too soon. Only lately he saw a case of complete detachment of most of the lower uterine segment as a result of applying forceps when the patient had been in labor only four hours. He would also disagree with Manton regarding the propriety of applying the forceps with the os not fully dilated.

## The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to B. R. Schenck, M. D., Editor, 502 Washington Arcade, Detroit, Mich.

Subscription Price, \$2.00 per year, in Advance.

SEPTEMBER

### Editorial

The Prophylaxis of Typhoid is a subject to which every practitioner in the state should devote much thought. There were in Michigan last year, between fifteen and sixteen thousand cases of typhoid fever, with something over fifteen hundred deaths. These fifteen hundred deaths may be justly charged up to the medical profession, not perhaps to the physicians under whose care the cases came, but rather to the ignorance of prophylaxis and to the indifference in carrying out known principles of prevention.

That typhoid fever is a germ disease and therefore a preventable disease, has been common knowledge for more than twenty years. That man is practically the only host, and that the bacilli are given off in the feces and urine every doctor has known for a dozen years or more. Had each physician who had a case of typhoid fever under his care, personally seen to it that every evacuation of the bowel and bladder was sterilized, in other words, that not a single live bacillus escaped in this way to pollute some water or milk supply—had such precautions been taken by every physician in the state during the past twelve years, would there have been fifteen thousand cases and fifteen hundred deaths, last year in Michigan?



Municipal prophylaxis, a term used to denote the inspection and purification of

the water and milk supply, has received far more attention than has individual prophylaxis. Owing to the high cost of land about our waterways, and the impracticability of effectually patrolling the water sheds, a pure water supply is almost an impossibility in this country.

That impure water can be thoroughly purified, however, has been amply proven in many instances, notably at Hamburg during the cholera epidemic in 1892. In that city there were 18,000 cases of the disease in three months with over 7,000 deaths, while Altoona, which also took its water from the Elbe, but thoroughly purified it by sand filtration, had a total of but 516 cases. The effect of sand filtration on typhoid mortalities is well shown in the statistics of the city of Lawrence, Mass., where the death rate from 1887 to 1893 from typhoid varied from 111 to 137. In 1893 sand filtration was installed and the rate fell to from 16 to 33 per 100,000.

Detroit has a splendid water supply and a typhoid mortality of which her health officer may be justly proud, yet the conditions are right for a fearful epidemic, once the Detroit river becomes thoroughly polluted. No single improvement is so badly needed as is the installation of a modern filtration plant. The same is true in other cities of the state.

Important as is this municipal prophylaxis, it is a trifle beside individual prophylaxis. In fact it is made necessary only because the latter is neglected.



The lesson of individual prophylaxis is easy to learn, but more difficult to carry out. Early diagnosis and thorough disinfection are the watch words. But there are difficulties in the way. A great source of danger is from the more or less numerous patients suffering from the so-called "walking typhoid," who go about infecting the water supply or the food supply, and who are not discovered un-

til incalculable mischief has been done. Another source of danger is from the less numerous but none the less dangerous persons known as "bacilli carriers." Even in a recognized case, the physician must contend with ignorance and indifference, and defiance of orders.

Nevertheless, despite these difficulties, much can be done and should be done by every practitioner treating typhoid, and were well known precautions thus taken in every case, the sum total would be an immense stride toward lessening the mortality of next year.



**Special measures to be carried out with the patient** are enumerated by McCrea, as isolation, disinfection, the exclusion of flies and the overseeing of the attendants.

Until the laity are better educated in this matter it will be difficult to carry out isolation. Nevertheless an attempt should be made to place the patient in a room prepared as for one of the more infectious diseases. Superfluous furniture and hangings should be removed and the other members of the family kept from the room. Particularly important is it that one set of dishes should be kept for the patient, and these should be thoroughly boiled before washing with those used by the other members of the family.

The feces must be disinfected. This does not mean the pouring into the bed pan of a few ounces of carbolic or bichloride solution, shaking and emptying. A sufficient quantity of the solution must be used and it must be allowed to act for a sufficient length of time. The urine, the sputum, the clothing and the bath water must receive attention.

It has been repeatedly demonstrated that flies and other insects may carry infection on the exterior of the body, and it is therefore important not only to screen the patient, but also the excreta from them. If it is impossible to properly screen the house, as is often the

case, particularly in the rural districts, a net should be placed over the bed and care taken to properly protect all vessels and utensils soiled or used by the patient. Neglect of these precautions may be responsible for the infection of food and other members of the family may thus contract the disease.

Unless scrupulous care is observed, the nurse or attendant upon a typhoid patient runs a certain risk of infection. If possible to so arrange it, the one who has the care of the patient should have no part in the preparation of the food for herself or the members of the family.

An excellent set of rules is the following:

#### HOW TO TAKE CARE OF THE DISCHARGES FROM TYPHOID PATIENTS.

A circular of instructions issued by the Wilmington Water Department.

Typhoid fever is caused by a germ which finds its way into the food or, more frequently, the drinking water.

The germ causing typhoid fever is invariably derived from the stools and urine of persons suffering from the disease.

The disease may be also communicated through soiling one's hands with the discharges and then permitting the hands thus soiled to come in contact with the food.

Infection may be prevented by destroying the germs in the discharges by means of disinfectants.

Therefore, to save yourself as well as others from infection, observe the following precautions:

1. Keep on hand a five-gallon jug or other suitable vessel filled with any one of the following solutions:

Solution No. 1. Chlorid of lime of the best quality, guaranteed to contain at least 25 per cent of available chlorin and free from a strong odor on opening the box, 6 ounces to each gallon of water.

Solution No. 2. Formalin (40 per cent), 5 fluid ounces to each gallon or a little over a pint and a half to the 5 gallons of water.

Solution No. 3. Carbolic acid, 4 ounces to the gallon or a pint and a quarter to the 5 gallons of water.



The choice of any of these solutions should be determined by the ability to obtain the pure article. Whatever solution is used, the vessel should be kept tightly corked.

2. Have the receptacles for the stools (bed-pan, night-chamber, etc.) provided with a closely-fitting lid, or improvise a lid from several thicknesses of paper with some weight over it. It is better to have two receptacles of a kind so that a clean one may always be on hand for the patient's use.

3. When required for use, put 1 pint (2 glass-fuls) of the disinfectant into the vessel (or if the urinal is used, one-quarter of a pint), that the discharges may come in contact with the disinfectant on their very issue from the body. No harm is done if some of the disinfectant should happen to spill on the bedclothes.

4. Remove the vessel containing the discharges to some secluded place in the house, add enough of the disinfectant to completely cover the discharges, stir up the contents with a small stick, replace the lid and allow it to stand for at least two hours. Remember that the longer you permit the discharges to come in contact with the disinfectant the more harmless do they become and the less obnoxious to handle.

5. If there is no water closet in the house, the discharges, after the disinfection, should be buried in the soil at least 100 feet from any well or stream.

6. When your hands become soiled with the discharges, they should be washed, first in the disinfectant (neither of the disinfectants will injure the skin), and then with soap and water.

7. All articles of the patient's clothing which have become soiled, and all the sheets, towels, napkins, etc., used by the patient should be kept in solution No. 2 or 3 (not in solution No. 1) until they are washed.

8. Use the disinfectant freely on all occasions requiring cleansing or soiled surfaces, and remember that "an ounce of prevention is worth a pound of cure."

Koch has demonstrated what may be accomplished by strictly enforcing measures such as these. In Germany, danger from water supplies has practically been eliminated and sanitarians are giving their attention to other modes of infection. In the western provinces, several

epidemics have been stamped out by the health officers. Every case is reported, completely isolated and everything in connection with the patient disinfected. Thus at Trier, 72 cases were discovered and handled in this way. Within three months there were no new cases, and none within that locality for some time. It is quite impossible to carry out these measures with anything like the same thoroughness in America. Nevertheless much can be accomplished by painstaking individual effort.



The interest shown in the subject of venereal disease and the public health has greatly increased in the last few years. Various symposia have been held, and there has resulted a widespread conviction that something ought to be done to limit the prevalence of gonorrhea, syphilis, and chancroids. However, like many another agitation in the medical world, this agitation has in many places given way to a painful quietude, and nothing is accomplished. In Michigan the State Society supports a committee on venereal prophylaxis; no report was made at the Saginaw meeting. A year or more ago a public meeting was held in Detroit, at which medical men, lawyers, clergymen and business men were asked to speak upon this subject. The occasion sowed seeds of interest, but has not as yet resulted in a harvest of things done.

In Chicago, on the other hand, an active campaign is being prosecuted. In May, of 1906, the Chicago Medical Society appointed a committee "to devise means for the education of the public in matters of sex, especially as to the disastrous prevalence of the venereal diseases and the frequent contamination of wives and children with these diseases." As a result of this committee's recommendation, there was formed the Chicago Society of Social Hygiene, incor-

porated under state laws, as an organization not for profit. In October, 1906, the society was ready for work, and their beginnings are of very great interest.

In the annual report of the secretary, the following is to be read:

The organized effort of the Society \* \* \* has been directed in three channels: first, the presentation to people of means and influence of the urgent need for such effort; second, the presentation to parents of the fact that their boys will certainly acquire knowledge of sexual matters at an early age, either in the street or at home—the parents must decide from which source this knowledge shall come; third, the presentation to young men of the dangers to body, mind, character and business success inseparable from illicit sexual indulgence, and the danger of ignorantly transmitting their own venereal diseases to their prospective brides and children.

The first of these objects has been sought by addressing personal letters to some 3,000 men and women; the second by the publication and circulation of 5,000 copies of a pamphlet entitled "The General Need for Education in Matters of Sex," comprising a series of articles by ten members of the Society; the third by informal addresses to audiences of young men, and by the circulation of over 30,000 copies of a leaflet entitled "Sexual Hygiene, a Circular of Information for Young Men." A copy of each of these publications has been mailed to each member of this Society.

The latter pamphlet became in great demand, not only in Chicago, but all over the country, by educational institutions, and Young Men's Christian Associations. This fact is significant, in its suggestion that the information is entirely new to thousands of people. It is not to be doubted that the dissemination of such circulars will do vast good, and the example is worthy of imitation. There is a fertile field for this kind of work, and the pioneers in it deserve unstinted praise.

The officers of the Chicago Society are giving it much time without recompense. The meagre income from membership

dues, donations, and sale of pamphlets has barely covered expenses, so that salaries are impossible. But in every state, if not in every city or county, there can be found men who would gladly emulate these Chicago men in their generosity and self-sacrifice.

Any person may obtain further knowledge concerning this society by communicating with its secretary, Dr. William T. Belfield, 100 State street, Chicago, or with the editor of this journal. Copies of pamphlets up to 100 in number, are sent free to responsible people, and larger quantities at a nominal charge.

#### OLIVER A. LA CRONE, M. D.

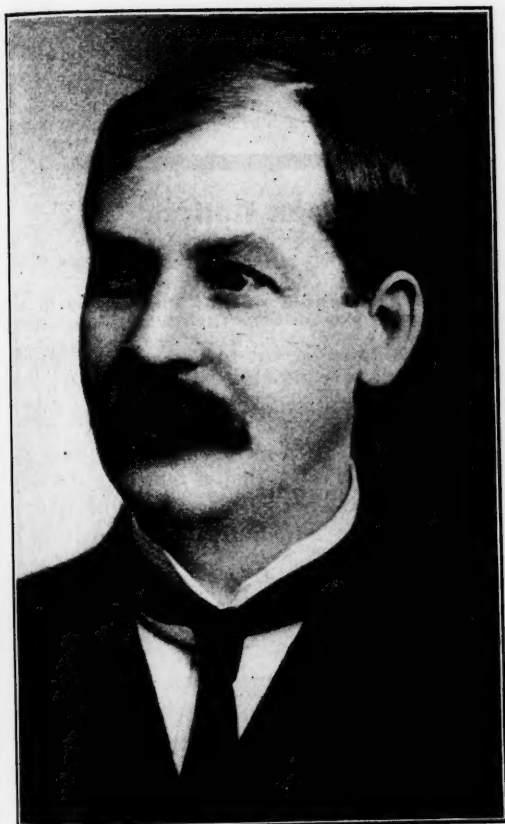
Dr. Oliver A. LaCrone, of Kalamazoo, died on July 18, at Mercy Hospital, Chicago, following an operation on the gall tract.

Dr. LaCrone was born December 21, 1859, at Springfield, Ohio. He commenced the study of medicine in 1880 at Berrien Springs, Mich., under Dr. W. F. Mason, and graduated from the Medical Department of the University of Michigan in 1886. He also took post-graduate courses at the University of Michigan and in Chicago. He practiced medicine in Berrien Center from 1886 to 1889, was assistant to the chair of medicine at the University of Michigan in 1889 and '90, and since then has practiced at Kalamazoo, limiting his practice to diseases of the eye, ear, nose and throat. He was consulting ophthalmologist to the Michigan Asylum for the Insane from 1893 and was special U. S. pension examiner from 1892 to the time of his death. He was a member of the American Medical Association, of the Michigan State Medical Society and of the Kalamazoo Academy of Medicine, being president of the latter society in 1895.

Dr. La Crone was a man of high ideals and professional attainments; a close stu-

dent, and progressive. He possessed those qualities that assure success and stand for the best citizenship. He earned a reputation that was more than local, attained a prominence in his specialty that was far above the average and that received favorable recognition from acknowledged leaders in the profession.

Socially the doctor's tendencies and



**Oliver A. LaCrone, M. D.**

tastes were decidedly cosmopolitan. He loved and thoroughly enjoyed the society of his fellow beings, was loyal to the core to his friends and possessed the happy faculty of winning over his enemies without sacrifice to his dignity and self-respect.

His death has removed from Kalamazoo

one of its most useful and influential citizens and from the medical profession an active and prominent member.

# RESOLUTIONS ON THE DEATH OF DR. OLIVER A. LACRONE.

Adopted by the Kalamazoo Academy of Medicine.

WHEREAS, Death has, by a law immutable, entered once more the circle of the Kalamazoo Academy of Medicine and taken away one of its best-loved members; and

WHEREAS, The Kalamazoo Academy of Medicine appreciated Dr. La Crone's great worth to his chosen profession, his valuable public services, his kindly, genial manners, and charitable work, the influence of which will long endure after the names of others shall have been forgotten,

RESOLVED, That the Academy of Medicine, feeling its own deep loss, most sincerely extends its sympathy to the family and friends on this occasion of their deep sorrow.

RESOLVED, That the Kalamazoo Academy of Medicine at an appointed time shall hold suitable memorial services in memory of Dr. LaCrone.

RESOLVED, That the medical profession of Southern Michigan be and are hereby invited, as a last token of esteem, to attend in a body the funeral services of Dr. LaCrone, who held enmity toward none and charity to all.

FURTHER RESOLVED, That a copy of these resolutions be sent to the family and friends, a copy to each of the daily papers and a copy spread upon the records of the Academy.

By the Committee:

FREDERICK SHILLITO,  
PAUL T. BUTLER,  
J. T. UPJOHN.

Adopted by the Medical Staff of the Michigan Asylum for the Insane.

WHEREAS, Our friend and co-worker, Dr. O. A. LaCrone, has passed to his last rest, we, the Trustees and Medical Staff of the Michigan Asylum for the Insane, wish to enter upon our records an expression of our appreciation of him and the services which he rendered so faithfully to our institution; and,

WHEREAS, In his death, we have lost not only a most genial companion and friend but an adviser and counsellor as well, one who was never too

weary nor too busy to respond to our call and whose medical knowledge and skill were ever at our service, giving generously and cheerfully his time and ability to suffering humanity; it is therefore

RESOLVED, That we extend to his sorrowing family our heartfelt sympathy in their time of affliction; and it is further

RESOLVED, That a copy of these resolutions be spread upon the minutes and a copy be sent to his bereaved family.



### JAMES F. CANAVAN, M. D.

In the death of Dr. James F. Canavan, which occurred from appendicitis, on July 26, 1907, at the Northern Michigan Asylum, the institution loses a most efficient member of its staff, and one who will be very greatly missed, not alone by his colleagues, but by all who knew him.

Dr. Canavan was born March 11, 1876, at Holyoke, Massachusetts, where he received his literary education, and in 1895 entered the Department of Medicine and Surgery, at Ann Arbor, Michigan, where he graduated in 1899. The same year he was called to a position on the staff of the Northern Michigan Asylum, at Traverse City, where he soon became first assistant, which position he held at the time of his death.

On May 17, 1905, he was united in marriage to Dr. Myrtel M. Moore, of St. Johns, Michigan.

No physician could have been more careful or painstaking in trying to do everything possible to relieve, in the face of impossible cures, the unfortunates who came under his care. He looked after these patients when they were sick with the same interest and sympathetic care that would be expected to be given to useful and industrious individuals.

Dr. Canavan was an enthusiastic worker in psychiatry and had done a great deal of research work along those lines. Together with his most esteemed helpmate, Dr. Myrtel Canavan, there was much to

be expected of them by the profession in the near future.

All during his college days and up to the time of his last illness, his chief desire was to do some deed of kindness to all he could, and to enrich his chosen profession by his untiring labors.

He was a man of sterling character, marked ability, and an ambition beyond his powers of endurance. Such lives as his, cut down in the bloom of youth, with a noble work unfinished, make our sorrow most profound, and our sincere sympathy goes out to those loved ones from whom he must be separated.

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### Book Notices

**Physicians' Manual of the Pharmacopeia and the National Formulary.** By C. S. N. Hallberg, Ph. G., M. D., and J. H. Salisbury, A. M., M. D. Chicago. Published by the American Medical Association, 1907. pp. 198. Fifty cents.

This little manual, bound in flexible covers, printed on thin paper, and made into pocket size, is a valuable digest of all the remedies contained in both the U. S. Pharmacopeia and the National Formulary. The introduction gives some excellent points regarding the use of official, semi-official, and non-official remedies, and is worth careful perusal. The book affords a convenient reference to all other standard remedies, giving technical or official name, chemical name, popular name, uses, and dosage, with exact formulae of all compounds and mixtures. The arrangement follows alphabetic order, and substances with compound names will be found twice; e. g., Emulsion Olei Morrhuæ is found under Emulsions and also under oleum. There is a Therapeutic Index that is very useful; and also an index of synonyms.

The manual is so useful that it ought to have wide distribution. Constant association with it would deter many a physician from prescribing questionable patent and proprietary medicines.

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**International Clinics.** 17th series. Vol. II. Edited by W. T. Longcope, M. D. Philadelphia, J. B. Lippincott Company, 1907.

The second volume of the 1907 series contains 25 original articles on treatment, medicine, sur-

gery, gynecology. The of the those on Diseases, rather than and "Th

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gery, gynecology, pediatrics, neurology and pathology. There are 42 excellent illustrations. All of the articles are good; especially timely are those on the "Vaccine Treatment of Infectious Diseases," by Cole, "A Plea for Laparotomy rather than Paracentesis in Ascites," by Dock, and "The Bone Marrow," by Dickson.

**Hare's Therapeutics.** A Text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Physician to the Jefferson Hospital, etc. New (12th) edition, enlarged and thoroughly revised. In one octavo volume of 939 pages, with 114 engravings and four colored plates. Cloth, \$4.00, net. Lea Brothers & Co., Philadelphia, 1907.

Few medical books have had a larger sale than Hare's "Practical Therapeutics," the twelfth edition of which is just from the press. It has been thoroughly revised and a considerable number of therapeutic advances have been incorporated. A description of a number of new drugs has been added to the section on materia medica.

The book is a splendid one for reference, but in our opinion, its arrangement makes it unfit to put into the hands of students. To study drugs alphabetically, is like learning theorems in geometry by number, the student getting absolutely no perspective on the subject. To study diseases alphabetically is likewise confusing.

As a desk book for ready reference, however, this volume has few equals.

**Schleif's Materia Medica and Therapeutics.** A Pocket Text-book of Materia Medica, Therapeutics, Prescription Writing, Medical Latin and Medical Pharmacy. By William Schleif, Ph. G., M. D., University of Pennsylvania, Philadelphia. New (3d) edition, 12mo. 470 pages. Cloth, \$2.50, net. Lea Brothers & Co., Philadelphia, 1907.

This neatly printed and bound volume contains the usual information regarding the pharmacopoeial drugs, logically grouped according to their physiologic action. There are also a therapeutic index of new remedies and a table of doses. The index is good. The volume is to be recommended.

**The Care of the Baby.** By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsyl-

vania. Fourth Revised Edition. 12mo of 455 pages, illustrated. Cloth, \$1.50 net. W. B. Saunders Company, Philadelphia, 1907.

Griffith's little book on the care of the baby has been popular, and deservedly so for it contains much very valuable information. This new edition has been improved by additions to both text and illustrations. It is a safe book to place in the hands of the expectant mother; it is a good book to which to refer for information on the little things which contribute so much to an infant's welfare.

**Importance of Supervision of Apparently Cured Tuberculosis Patients After they Leave Sanatoria.**—FREDERICK L. KNIGHT, Boston (*Journal A. M. A.*, July 27) asserts that the proper and satisfactory control of tuberculosis in the future

will involve a continued knowledge on the part of some authority not only of the individuals infected, but of their families and all surroundings. He believes that this duty should be assigned not to local boards of health, but to special local boards, who should gain the desired results with as little publicity as possible. These local boards should be composed of persons really interested in the subject, who should work cautiously and be sufficiently discreet not to create a panic in the local neighborhoods. One of the functions of such a board should be to supervise patients who, apparently cured, return home from treatment at sanatoria or elsewhere. The better class of patients will usually consult their physicians and arrange some hygienic mode of life for the immediate future; but the poorer class are sent out with some good general advice as to out-door life, employment, etc., but with no idea how to obtain them. It is patients of this class that need to be guided. One of the most promising ways of helping to maintain the health of those restored at sanatoria is by the establishing of labor or farm colonies, where gardening, farming, raising of chickens, keeping of bees, cultivation of flowers, etc., can be carried on, with gradually increasing hours and severity of work, under medical supervision. This can be done at some of the sanatoria, where they have land enough, or at special farms devoted to the purpose, like convalescent homes. In fact, many patients, he states, could and would be better for doing some work of this kind during a part, or in some cases all of their time at the sanatoria; provided there are grounds enough to set up such regime at the institution.

CONSTITUTION AND BY-LAWS.  
OF THE  
MICHIGAN STATE MEDICAL SOCIETY

ADOPTED AT PORT HURON, JUNE 26, 1902.

ARTICLE I.—NAME OF THE SOCIETY.

The name and title of this organization shall be the Michigan State Medical Society.

ARTICLE II.—PURPOSES OF THE SOCIETY.

The purpose of this Society shall be to federate and to bring into one compact organization the entire medical profession of the State of Michigan and to unite with similar Societies in other States to form the American Medical Association; with a view to the extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interests; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine; so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES.

Component Societies shall consist of those County Medical Societies which hold charters from this Society.

ARTICLE IV.—COMPOSITION OF THE SOCIETY.

SECTION 1. This Society shall consist of Members, Delegates, and Honorary Members.

SEC. 2. *Members.* The Members of this Society shall be the members of the Component County Medical Societies.

SEC. 3. *Delegates.* The Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective Component County Societies in the House of Delegates of this Society.

SEC. 4. *Honorary Members.* Honorary mem-

bers shall be of two classes, resident and non-resident.

SEC. 5. Resident Honorary Members shall be chosen from those who have practiced medicine not less than *thirty* years and have been active members in good standing of this Society for at least *ten* years. They shall be nominated by the Council at any of its meetings and may be elected by the House of Delegates at the Annual Meeting following such nomination. They shall have all the privileges of the Society and receive all publications without the payment of dues. Not more than five Resident Honorary Members shall be elected at any one meeting.

SEC. 6. Any distinguished physician, not a resident of this State, may be elected an Honorary Member, provided he has been nominated by the Council at a previous meeting. Not more than two non-resident Honorary Members shall be elected at any one meeting.

ARTICLE V.—HOUSE OF DELEGATES.

The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by the Component County Societies, and (2) *ex-officio*, the officers of the Society as defined in this Constitution, without power to vote. (*As amended June 28, 1905.*)

ARTICLE VI.—SECTIONS AND DISTRICT SOCIETIES.

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of the Component County Societies.

ARTICLE VII.—SESSIONS AND MEETINGS.

SECTION 1. The Society shall hold an Annual Session during which there shall be held daily

General Meetings, which shall be open to all registered members and delegates.

SEC. 2. The time and place for holding each Annual Session shall be fixed by the House of Delegates.

#### ARTICLE VIII.—OFFICERS.

SECTION 1. The officers of this Society shall be a President, four Vice-Presidents, a Secretary, a Treasurer, and twelve Councilors.

SEC. 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretary and the Treasurer shall be elected by the Council at its Annual Meeting in January, and each shall hold his office for one year. The Councilors shall be elected for terms of six years each, these terms being so divided that four Councilors shall be chosen each alternate year. All of these officers shall serve until their successors are elected and installed. (*As amended May 14, 1907.*)

SEC. 3. The officers of this Society, not otherwise elected, shall be elected by the House of Delegates on the morning of the last day of the Annual Session; but no Delegate shall be eligible to any office named in the first section, except that of President or Councilor; and no person shall be elected to any such office who has not been a member of this Society for at least two years.

#### ARTICLE IX.—FUNDS AND EXPENSES.

SECTION 1. Funds for meeting the expenses of the Society shall be provided by a yearly fee of two dollars for each member, payable in advance to the Secretary of this Society by the Secretary of his Component County Society, and from the profits of its publications.

SEC. 2. Funds may be appropriated by the House of Delegates, subject to an approval by the Council, to defray the expenses of the Annual Sessions, for publication, and for such other purposes as will promote the welfare of the Society and the profession.

#### ARTICLE X.—RECIPROCITY OF MEMBERSHIP AMONG STATE SOCIETIES.

To broaden professional fellowship among the State Societies, the Michigan State Medical Society, by its President and Secretary, is ready to arrange with other State Medical Societies, having equal requirements, for the interchange of certificates of membership. Members removing

from one of these States to another may thus avoid the formalities of re-election.

#### ARTICLE XI.—REFERENDUM.

The General Meeting of the Society may by a two-thirds vote order a general referendum upon any question pending before the House of Delegates, and the House of Delegates may by a similar vote of its own members, or after a like vote of the General Meeting, submit any such question to the members of the Society for a final vote; and, if the persons voting shall comprise a majority of all the members registered at the session, a majority of such vote shall determine the question, and be binding upon the House of Delegates.

#### ARTICLE XII.—THE SEAL.

The Society shall have a common Seal, with power to break, to change or to renew the same at pleasure.

#### ARTICLE XIII.—AMENDMENTS.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each Component County Society at least four months before the session at which final action is taken.

### BY-LAWS.

#### CHAPTER I.—MEMBERSHIP.

SECTION 1. All members of the Component County Societies, who are not in arrears for dues, shall be privileged to attend all meetings and to take part in all of the proceedings of the Annual Session, and shall be eligible to any office within the gift of the Society, except as otherwise provided. See Constitution, Art. VIII., Sec. 3.

Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by being again elected to membership. (*As amended June 29, 1905.*)

SEC. 2. The name of a physician upon the properly certified roster of members, or list of delegates, of a chartered County Society shall be

prima facie evidence of his right to register at the Annual Session in the respective bodies of this Society.

SEC. 3. No person who is under sentence of suspension or expulsion from any Component Society of this Society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Society; nor shall he be permitted to take part in any of its proceedings until such time as he has been relieved of such disability.

SEC. 4. Each member in attendance at the Annual Session shall enter his name on the registration book, indicating the Component Society of which he is a member. When his right to membership has been verified by reference to the roster of his Society he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that Session. No member or delegate shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

#### CHAPTER II.—ANNUAL AND SPECIAL SESSIONS OF THE SOCIETY.

SECTION 1. The Society shall hold an Annual Session at such time and place as has been fixed at the preceding Annual Session.

SEC. 2. Special sessions of either the Society or the House of Delegates may be called by the President at his discretion or upon petition of twenty delegates.

#### CHAPTER III.—GENERAL MEETINGS.

SECTION 1. The General Meetings shall include all registered members and delegates, who shall have equal rights to participate in the proceedings and discussions, and to vote on pending questions. Each General Meeting shall be presided over by the President, or in his absence or disability, or by his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the annual address of the President, and the entire time of the Session, so far as may be, shall be devoted to papers and discussions relating to scientific medicine.—(*As amended May 23, 1906.*)

SEC. 2. The General Meeting shall have authority to create committees or commissions for scientific investigations of special interest and importance to the profession and public, and to receive and to dispose of reports of the same; but

any expense in connection therewith must first be concurred in by the Council.

SEC. 3. Except by special vote the order of exercises, papers, and discussions as set forth in the official program shall be followed from day to day until it has been completed.

SEC. 4. No address or paper before the Society, except that of the President, shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes, or more than once on any subject.—(*As amended May 25, 1906.*)

SEC. 5. All papers read before the Society shall be its property. Each paper read shall be deposited immediately with the Secretary, but the author may also publish the same in any reputable journal not published in this State, provided the printed article bears the statement that it was "read before the Michigan State Medical Society."

#### CHAPTER IV.—HOUSE OF DELEGATES.

SECTION 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate.

SEC. 2. The House of Delegates shall meet annually at the time and place of the Annual Session of the Society, and shall so fix its hours of meeting as not to conflict with the first General Meeting of the Society, or with the meeting held for the address of the President, and so as to give delegates an opportunity to attend the other scientific proceedings and discussions so far as is consistent with their duties. But, if the business interests of the Society and profession require, it may meet in advance, or remain in session after the final adjournment of the General Meeting.—(*As amended May 25, 1906.*)

SEC. 3. A majority of the registered delegates shall constitute a quorum. All of the meetings of the House of Delegates shall be open to members of the Society.

SEC. 4. It shall consider and advise as to the interests of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and to enforce all proper medical and pub-



lic health legislation, and to diffuse popular information in relation thereto.

SEC. 5. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body in such a manner that at least one of the delegates shall be elected each year.

SEC. 6. It shall divide the counties of the State into twelve Councilor Districts. When the best interest of the Society and the profession will be promoted thereby, it may organize in each a District Medical Society, to meet midway between the Annual Sessions of this Society. Members of the chartered County Societies, and no others, shall be members in such District Societies. (*As amended May 26, 1904.*)

SEC. 7. It shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates, and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

SEC. 8. It shall approve all memorials and resolutions issued in the name of the Society before the same shall become effective.

SEC. 9. It shall present a summary of its proceedings to the last General Meeting of each Annual Session, and shall publish the same in the Journal of the Society.

SEC. 10. The House of Delegates shall provide for the division of the scientific work of the Society into appropriate Sections:

First—A Section on General Medicine.

Second—A Section on Surgery, Ophthalmology and Otology.

Third—A Section on Obstetrics and Gynecology.

#### CHAPTER V.—SECTIONS.

SECTION 1. Sections shall hold their meetings at such times and in such places as shall not interfere with the General Meetings.

At each Annual Meeting a Chairman shall be chosen for each Section, to serve for one year. A Secretary shall be chosen every second year to serve for two years or until his successor is elected.

All papers, communications and matters of technical or professional nature shall be referred to the Section to which they pertain.

#### CHAPTER VI.—ELECTION OF OFFICERS.

SECTION 1. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, unless otherwise provided.

SEC. 2. The House of Delegates shall elect annually at its first meeting a Nominating Committee of five from the House of Delegates, no two of whom shall be from the same Councilor District.—(*As amended, June 11, 1903.*)

SEC. 3. The Nominating Committee shall nominate the first, second, third and fourth Vice-Presidents, the Councilors from the Districts in which there are vacancies, and the Representatives to the House of Delegates of the American Medical Association. In so far as possible, the Vice-Presidents shall be selected with especial reference to the promotion of the work of the Councilors in the four Districts nearest their respective residence.

SEC. 4. The report of the Nominating Committee and the election of the officers nominated shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the Session.

SEC. 5. Nothing in this article shall be construed to prevent additional nominations being made by members of the House of Delegates.

SEC. 6. Any member of the Society is eligible to the office of President, and nominations to this office may be made and seconded by any member of the same.

SEC. 7. The nominations for President shall be made the first order of miscellaneous business at the General Meeting of the Society on the first day of the Annual Session. Under no other circumstances shall a nomination or announcement of candidates be made in open session.

SEC. 8. A locked ballot box, for the reception of ballots, in the custody of the Committee on Nominations above mentioned, shall be placed in or about the hall where the General Meetings are held. One or more of the Committee on Nominations shall receive and deposit the ballots in the box, at the same time checking the name of the voter from the list of those entitled to vote, which list shall include all the members of the Society registered at the meeting.

SEC. 9. The polls shall close at 11 o'clock a. m., on the last day of the Session. The result of the canvass shall be reported to the Society at the close of the General Meeting.—(*As amended, May 25, 1906.*)

SEC. 10. The person receiving the largest number of votes on the presidential ticket shall be declared President.

SEC. 11. In the event of a tie vote on the presidential office the presiding officer shall submit the names of the candidates in alphabetical order to the viva voce vote of the meeting, and the one receiving the greatest number of votes shall be declared President.

SEC. 12. The Secretary and the Treasurer shall be elected by the Council at its meeting in January, as provided.

#### CHAPTER VII.—DUTIES OF OFFICERS.

SECTION 1. The President shall preside at all meetings of the Society and of the House of Delegates; shall appoint all committees not otherwise provided for; shall deliver an annual address at such time as may be arranged; shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall, as far as practicable, visit by appointment the various sections of the State and assist the Councilors in building up the County Societies, and in making their work more practical and useful.

SEC. 2. The Vice-Presidents shall assist the President in the discharge of his duties, and the Council in the organization and nurture of County Societies.

SEC. 3. The Treasurer shall give bond for the trust reposed in him, as fixed by the Council. He shall demand and receive all funds due the Society, together with bequests and donations. He shall, under the direction of the Council, sell or lease any estate belonging to the Society, and execute the necessary papers; and shall, in general, subject to such direction, have the care and management of the fiscal affairs of the Society. He shall pay money out of the Treasury only on the written order of the Chairman of the Council, countersigned by the Secretary of the Society; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of the doings and of the state of the funds in his hands to the Council.

SEC. 4. The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend all meetings of the Society and of the House of Delegates, keeping minutes of their respective proceedings in separate record books. He shall be custodian of all record books and papers belonging to the Society, except

such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates at the Annual Sessions. In so far as it is in his power he shall use the printed matter, correspondence and influence of his office to aid the Councilors in the organization and improvement of the County Societies, and in the extension of the power and usefulness of this Society. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall be Editor of the Journal of this Society, and shall employ such assistants as may be ordered by the Council. He shall annually make a report to the Council at the January meeting and the essentials of this report shall be incorporated in the report of the Chairman of the Council to the House of Delegates at the next Session.—(*As amended, May 25, 1906*).

In order that the Secretary may be enabled to give that amount of time to his duties which will permit of his becoming proficient, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the Council.

SEC. 5. The Council shall hold daily meetings during the Annual Session of the Society and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. Three Councilors shall constitute a quorum for the transaction of business. The Council shall meet on the last day of the Annual Session of the Society for reorganization and for the outlining of the work for the ensuing year. At this meeting it shall elect a Chairman and a Secretary.

It shall hold a meeting in January of each year at a date and place fixed by the Chairman. It shall keep a permanent record of its proceedings, and through its Chairman make an annual report to the House of Delegates at such time as may be provided.

SEC. 2. Collectively the Council shall be the Board of Censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the Component Societies, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or of a County

Society, upon which an appeal is taken from the decision of an individual Councilor. Its decision in all such cases shall be final.

SEC. 3. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such County Societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality, and shall continue these efforts until every reputable physician of the State has been brought under medical society influence.

SEC. 4. It shall upon application provide and issue charters to County Societies organized to conform to the spirit of this Constitution and By-Laws.

SEC. 5. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies. These societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for County Societies, until such counties may be organized separately.

SEC. 6. The Council shall provide and superintend the publication and distribution of all proceedings, transactions and memoirs of the Society, and shall have authority to appoint an editor and such assistants as it deems necessary. Further, to facilitate this work, it shall be the duty of the Secretaries of the Sections, during each Annual Session, or as soon thereafter as practicable, to deliver to the Editor, or his duly appointed agent, all such proceedings, reports, addresses, papers and other documents, as may have been ordered for publication. All money received by the Council, or its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Society, and all orders on the Treasurer for disbursements of money in any way connected with the work of publication must be endorsed by the Chairman of the Council and countersigned by the Secretary of the Society. All matters of the Society pertaining to the expenditure of money for other purposes shall be referred, during the Annual Session, to the Council, who shall report upon the same within twelve hours,

and if the House of Delegates orders the expenditure of money in connection with said report, the payment shall be made by the Treasurer as provided above. It shall be the further duty of the Council to hold the official bond of the Treasurer for the faithful execution of his office, annually to audit and authenticate his accounts, and to present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Society during the year, and the amount of all other property belonging to the Society under its control, with such suggestions as it may deem necessary.

In the event of a vacancy in the office of the Secretary of the Society, or the Treasurer, the Chairman of the Council shall fill the vacancy ad interim until the next meeting of the Council.

SEC. 7. Each Councilor shall be organizer, peacemaker and censor for his District. He shall visit each county in his District at least once a year for the purpose of organizing component societies where none exists, inquiring into the condition of the profession, and for improving and increasing the zeal of the County Societies and their members. He shall make, on blanks furnished by the State Secretary, a report of his doings and of the condition of the profession of each county in his District to the Council at its Annual Meeting in January. The necessary traveling expenses, not to exceed twenty-five dollars annually, incurred by such Councilor in the line of duties herein imposed, may be allowed by the House of Delegates upon a proper itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Society.—(*As amended, June 29, 1905.*)

#### CHAPTER IX.—COMMITTEES.

SECTION 1. The standing committees shall be as follows:

- A Committee on Scientific Work.
- A Committee on Public Policy and Legislation.
- A Committee on Arrangements.
- A Committee on Medical Education.

(*As Amended, May 25, 1906, and May 16, 1907.*)

SEC. 2. The Committee on Scientific Work shall consist of the President, who shall be the Chairman, the Secretary, and the Chairmen and Secretaries of the Sections. It shall determine the character and scope of the scientific proceedings of the Society for each session, subject to the

instructions of the House of Delegates, or of the Society, or to the provisions of the Constitution and By-Laws. Thirty days previous to each Annual Session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented, which shall be adhered to by the Society as nearly as practicable.

SEC. 3. The Committee on Public Policy and Legislation shall consist of three members appointed by the President. Under the direction of the House of Delegates it shall represent the Society in securing and enforcing legislation in the interest of the public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, state and national affairs and elections.

No bill or proposed law or amendment thereto shall be introduced in the State Legislature or sent to any member thereof in the name of this Society or by any of its committees until such proposed Legislation shall have been endorsed and approved by the Council of this Society in regular session.

After any proposed legislation shall have been endorsed by the Council, it shall be referred to the Committee on Public Policy and Legislation, who shall thereupon have it presented for passage at Lansing, and take such steps as may be deemed necessary to secure for it the united endorsement of the Medical Profession throughout the State, and to that end it shall be the duty of the Secretary of this Society under the direction of the Committee on Legislation and Public Policy, to have printed and issued to the various County Societies, or to each member thereof as the case may require, circular letters and letters of endorsement to be addressed by physicians to their representatives at Lansing, asking for the support and passage of the legislation so approved.—(*As amended, May 16, 1907*).

SEC. 4. The Committee on Arrangements shall consist of five members of the County Society in the territory in which the Annual Session is to be held, and shall be appointed by the President of the Society. It shall, by committees of its own selection, provide suitable accommodations for the meeting place of the Society, the House of Delegates, the Council and the Sections, and shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements

to the Secretary for publication in the program.

SEC. 5. The Committee on Medical Education shall consist of three members, one to be appointed for one year, one for two years, and one for three years, thereafter one member to be appointed each year; said committee shall select one of its own members as a Delegate to the yearly conference on Medical Education of the American Medical Association.—(*As amended, May 16, 1907*).

#### CHAPTER X.—AUTHORITY IN EMERGENCIES.

When prompt speech and action are imperative with reference to matters concerning which the views of the Society are well known, authority to speak and act for it is vested by the Michigan State Medical Society in its President and Council.—(*As adopted, June 30, 1905*).

#### CHAPTER XI.—ASSESSMENTS AND EXPENDITURES.

SECTION 1. An assessment of two dollars per capita on the membership of the Component Societies is hereby made the annual dues of this Society. The Secretary of each County Society shall forward its assessment with a roster of all officers and members to the Secretary of this Society as soon after the annual meeting of the County Society as possible; not later than December 31st.

SEC. 2. Any County Society which fails to pay its assessment, or to make the reports required, on the date above stated, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society or of the House of Delegates until such requirements have been met.

SEC. 3. All motions or resolutions appropriating money shall specify a definite amount for the purpose indicated, and must be approved by the Council.

#### CHAPTER XII.—RULES OF CONDUCT.

The principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

#### CHAPTER XIII.—RULES OF ORDER.

The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, unless otherwise determined by a vote of its respective bodies.



## CHAPTER XIV.—COUNTY SOCIETIES.

SECTION 1. All County Societies now in affiliation with the State Society or those which may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, or with the code of ethics of the American Medical Association, shall, upon application to the Council, receive a charter and become a component part of this Society, subject to the condition described in Sec. 4 of this Chapter. A roster of its officers and members and the annual dues of \$2 for each member must accompany the application.

SEC. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws a medical society shall be organized in every county in the State in which no component society exists.

SEC. 3. Charters shall be issued only upon approval of the Council, and shall be signed by the President and Secretary of this Society. The Council shall have authority to revoke the charter of any Component Society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws or the Code of Ethics of the American Medical Association.

SEC. 4. Only one Component Medical Society shall be chartered in any county. Where more than one County Society exists, friendly overture and concessions shall be made, with the aid of the Councilor for the District if necessary, and all of the members brought into one organization. In case of failure to unite an appeal may be made to the Council, which shall decide what action shall be taken.

SEC. 5. Each County Society shall judge of the qualifications of its own members; but, as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally registered physician who is practicing, or who will agree in writing over his own signature to practice, non-sectarian medicine only, and to sever all connections with sectarian colleges, societies and institutions, shall be entitled to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

SEC. 6. Any physician who may feel aggrieved by the action of the Society of his County in refusing him membership, or in suspending or expelling him, shall have the right of appeal to the Council.

SEC. 7. In hearing appeals the Councilor or the Council may admit oral or written evidence as in his or its judgment will best and most fairly present the facts. Efforts at conciliation and compromise shall, however, precede all such hearings.

SEC. 8. When a member in good standing in a Component Society moves to another county in this State, his name, upon request, shall be transferred without cost to the roster of the County Society into whose jurisdiction he moves.

SEC. 9. A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

SEC. 10. Each County Society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the county.

SEC. 11. At the Annual Meeting in the fall, or at the first meeting after January 1st, due notice having been given, each County Society shall elect annually a delegate and alternate, or delegates and alternates to represent it in the House of Delegates of this Society in the proportion of one delegate to each FIFTY members or major fraction thereof (see By-Laws, Chapter IV., Sec. 1.) The Secretary of the County Society shall immediately send the list of its delegates to the Secretary of this Society.—(*As amended, June 29, 1905*).

SEC. 12. The Secretary of each County Society shall keep a roster of its members, and a list of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall annually furnish an official report containing such information, upon blanks supplied him for the purpose, to the State Secretary by the first day of January. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his report shall be certain to account for every physician who has lived in the county during the year.—(*As amended, June 29, 1905*).

## CHAPTER XIV.—AMENDMENTS.

These By-Laws may be amended at any Annual Session by a majority vote of all the Delegates present at that Session after the amendment has laid upon the table for one day.

## County Society News

### UPPER PENINSULA MEDICAL SOCIETY.

The annual meeting of the Upper Peninsula Medical Society was held in the lecture hall of the Spies Public Library, Menominee, July 16 and 17, 1907. A regular quarterly meeting of the Fox River Valley Medical Society of Wisconsin was held at the same time, some of the sessions being held jointly.

The papers read were as follows:

A Survey of the Endemic and Epidemic Bowel Disturbances Prevailing in Escanaba. O. C. Breitenbach, Escanaba.

The Treatment of Gonorrheal Infection of the Female Genital Tract. D. W. Ross, Manistique.

The Preparation of Catgut. A. W. Hornbogen, Marquette.

Acute Mastoiditis. C. R. Elwood, Menominee.

Accouchement Force. E. T. Abrams, Dollar Bay.

The Professional Secret and the Laws. C. L. Girard, Escanaba.

Umbilical Hernia. W. R. Hicks, Menominee.

Hygienic Measures in Therapeutics. H. T. Carriel, Marquette.

The social features of the meeting included a banquet at the Stephenson Hotel, at which the members of the Upper Peninsula and Fox River Valley Medical Societies were entertained by the members of the Menominee and Marinette County Medical Societies.

The following resolution was adopted unanimously:

*Be It Resolved*, That the Upper Peninsula Medical Society of Michigan in convention assembled, is thoroughly convinced that the establishment of a Sanitarium for the treatment of Tuberculosis, in the Upper Peninsula, is an urgent necessity that demands immediate attention—and further that the plan suggested by Dr. F.

McD. Harkin of having a Joint Conference of supervisor—delegates, and physician—delegates from each and every county in the upper peninsula to meet, confer and decide upon the question is timely and appropriate.

2nd. That Dr. Harkin be empowered to appoint the physicians who will give the addresses of instruction to the Board of Supervisors in the different counties, and further that such appointed physicians constitute the commission of physicians—to confer with the supervisor-delegates as soon as can be made convenient.

The following officers were elected:

Dr. B. T. Phillips, of Menominee, President.

Dr. C. L. Girard, of Escanaba, Vice-President.

Dr. W. T. S. Gregg, of Calumet, Second Vice-President.

Dr. H. J. Hornbogen, of Marquette, Secretary.

The meeting was a highly successful one, some fifty members being present. The Society will meet next year in Marquette.

R. A. WALKER, Sec'y.

(The papers of Drs. Breitenbach, Girard, Carriel and Hornbogen will appear next month.)

## Correspondence.

Marienbad, Germany, July 25, 1907.

To the Editor:—

Our mail very frequently contains literature and samples sent by various concerns. Among the houses which are well known to the profession, are the Farben-Fabriken, formerly Friedrich Bayer & Company of Elberfeld. Their products, Trional, Aspirin, Tannigen, Protargol, Alynin, etc., are very familiar to us. As the opportunity presented itself to see the Elberfeld branch of the house, I paid a visit to the institution with the purpose of ascertaining, in a general way, to what extent the scientific spirit enters into the manufacturing and recommending of the pharmaceutical products used by the medical profession. I was informed that about twenty pharmaceutically educated chemists, with university training, are constantly endeavoring to invent remedies and to create them synthetically. The results of their efforts are laid before an authority, a medical man, I am told, who was formerly professor of pharmacology at the universities of

Bonn and Goettingen. He is assisted by two pharmacologists and by a bacteriologist. The latter is also an analytical chemist. These gentlemen try the product on the animal. Then it is tried in the polyclinics of the plants, of which one exists in Elberfeld and one in Lever-Kusen. The two plants of which the pharmaceutical department, of course, forms only a part, employ about seven thousand people. Five physicians are employed in the clinics. These clinics and the obstetrical department, I may mention, form only a part of the very extensive and elaborate system of charitable and benevolent institutions which have been created and are maintained by the company for the welfare of their employees. After the preparation has stood the test so far, it is submitted to hospitals, preferably to university hospitals, or to specialists of renown, through the scientifically trained representatives who number about fourteen. The incoming reports are then compared with each other and only if they are favorable is the product placed on the market and manufactured. This process, I am told, takes from one to four years. Each year one or two new preparations may thus be turned out of the many hundred chemical products which are submitted to the pharmacological laboratory. This year, not a single new preparation has so far been placed on the market. The institution claims to possess the most valuable chemical library in the world. It has been fortunate to acquire, for a comparatively small sum of money, the library of the deceased famous chemist Kékulé. In the reading rooms of the library about 350 medical and pharmaceutical periodicals are reported to be on file. The institutions for the welfare of the employees deserve especial consideration, but time and space forbid to describe them more fully.

EMIL AMBERG, M. D.

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### News

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Dr. and Mrs. H. R. Varney, of Detroit, have returned from a trip abroad of over two months.

Dr. R. Adlington Newman, of Detroit, is traveling in Europe.

Dr. Charles W. Niles, for many years of the Calumet and Hecla Hospital staff, has submitted his resignation, to take effect shortly.

Dr. and Mrs. H. W. Longyear, of Detroit, are traveling in Europe, where they will join Dr. and Mrs. Theo. A. McGraw, Jr.

Dr. E. R. Marshall, of Clarksville, Tenn., has succeeded Dr. R. A. C. Wollenberg in Detroit as physician in the Marine Hospital and Immigration Service. The latter has been transferred to Ellis Island, N. Y.

Dr. S. C. Moore, of Cadillac, had three ribs broken in a runaway accident on August 3rd.

The Kalamazoo Hospital has been relieved of a burdensome and long-standing debt by the work of a committee who have solicited sufficient funds to cancel the debt. A new organization is contemplated.

The Lapeer County Medical Society held their midsummer meeting at Lake Pleasant early in July, accompanied by their families. Papers were read by Dr. A. P. Ohlmacher of Detroit and Dr. H. E. Randall of Lapeer.

Dr. M. A. Fechheimer, of Detroit, has returned from a years study and travel in Europe.

Dr. D. L. Parker, of Detroit, has returned from a trip to the Pacific Coast and Alaska.

Calhoun County recently secured a conviction under the Medical Practice Act which may serve as a wholesome precedent. Judson F. Bosworth, of Oswego, N. Y., pleaded guilty in July of practicing medicine without a license, under complaint of Dr. J. C. Brown, and was fined \$100 and costs.

Dr. Leartus Connor, of Detroit, has the sympathy of the Michigan profession in the death of his wife, which occurred suddenly on July 21.

The report comes from Laingsburg that Dr. D. G. Austin, who sold his practice in that place to Dr. George Robb, of Flushing, under agreement to cease practice there, has been enjoined from practice on complaint of Dr. Robb.

Dr. E. R. Johnson, of the staff of Oak Grove Hospital, Flint, has resigned, and will pursue medical studies abroad.

Dr. Frank N. Martin, St. Joseph, has gone abroad to study in Edinburgh and Vienna.

There have been 1870 cases of small-pox in the U. S. during the last seven months, with only four deaths.

Plans have been accepted for a new medical building at McGill University, to cost a half million dollars.

The efficiency of medical education has been enhanced during the past year by several changes in medical schools, viz: The Kentucky University Medical Department has merged with the University of Louisville; the Ohio Medical University and the Starling Medical College have merged at Columbus, taking the name of the Starling-Ohio Medical College; the Barnes Medical College of St. Louis has transferred its entire property to the University of Missouri; the Medical College of Alabama has become the Medical Department of the University of Alabama; the Denver Homoeopathic College has become the College of Medicine of Westminster University; Milwaukee Medical College is now the Medical Department of Marquette University.

Two medical colleges have been closed during the past year, the Coalifornia Medical College (Eclectic), San Francisco, and the Grand Rapids Medical College.

In the United States there is now one physician to every 636 persons, exclusive of osteopaths, neuropaths, and other irregulars. The District of Columbia has the smallest number to each doctor, viz: 258; and South Carolina the largest number, 1,346. Michigan is crowded beyond the average, with one to every 592.

Frank A. Boet, M. D., and Miss Mabelle H. Thomas, both of Grand Rapids, were married on June 29.

Dr. A. L. Laing, of Rapid River, president of the Delta County Medical Society, recently submitted to an operation at Rochester, Minn., from which he made an excellent recovery.

Dr. F. Summerbell has located in Escanaba.

Dr. James Mitchell, recently of Gladstone, has removed to Northwestern Canada.

Dr. A. H. Miller has removed from Sault Ste. Marie to Gladstone.

Dr. James Lawson Walsh has removed from Caseville to Bay City.

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## Deaths

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Dr. M. M. Swarthout, of White Cloud, formerly of Grand Rapids, committed suicide at his home on July 18, by shooting himself three times, aged 44.

Dr. John S. Ingram, of Grand Rapids, a former practitioner in Bailey, but since retired, died at his home on August 3.

Dr. James F. Canavan, of Traverse City, first assistant physician on the staff of the Northern Michigan Asylum, died of appendicitis on July 25, aged 31.

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**The Status of the Child.**—J. R. SNYDER, Birmingham, Ala., in his chairman's address before the Section on Diseases of Children, at the recent session of the American Medical Association (*Journal A. M. A.*, Aug. 3), holds that certain changes in our ways of living are called for by the degenerative tendencies now existing. The disinclination to maternity in certain classes, is, he thinks, threatening the national welfare. In our efforts to check infant mortality we do not start far enough back—we should educate the potential mothers. Divorce and excessive luxury are also evils to be fought and ones that directly affect to its disadvantage the growing child. The menacing member of society does not always come from the ranks of the poor in this country, the bad citizen is sometimes made from the pampered child of wealth. Thoughtlessness in the care of the child is not restricted to any one class, and Snyder illustrates this by mentioning certain demoralizing associations to which precocious children are subjected in certain occupations in which they are permitted to engage by their parents, and certain bad habits they are allowed to acquire. This is apart from the child-labor evil in factories. He also mentions the evils of much of the current news literature to which the children, as well as the older members of society, are exposed. He speaks hopefully, however, of the efforts of reformers and philanthropists at present and appeals to the medical profession to work for the same ends in their dealings with the parents of the future citizens of the republic.

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In retention of urine in hysterical subjects the use of the catheter should be avoided whenever possible. Patients of this class have so strong a desire for being noticed and sympathized with that when once catheterized they will ask for its repetition. Placing them in a hot bath and ignoring the urinary condition, or diverting their minds from it, will generally relieve the retention without the need of a catheter.



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Observations on Sodium Chloride Metabolism.**—BITTORF AND JOCHMANN report the following conclusions:

At the height of pneumonia, increased salt ingestion causes no increase of excretion. The cause of retention does not lie in water retention, but in the properties of the tissues and the pneumonic exudate. In inflammatory exudates, the chlorine excretion may be normal and increased salt ingestion may cause diuresis rather than retention. Exploratory puncture helps excretion; diuretic works only for water elimination. In heart lesions, the excretion of water and salt depends on the circulation. Administration of salt does not necessarily lead to water retention, but often to diuresis.

The chlorin content of non-nephritic exudates and transudates is higher than in the edema of nephritic subjects. The stagnant kidney is able to take care of a large amount of salt. Nephritis with cardiac insufficiency behaves like uncompensated heart disease. In other kidney lesions, the excretion varies, but is usually good, and independent of water elimination. In acute nephritis with edema, administration of salt led to increased water and salt elimination. This patient previous to the appearance of edema had diminished salt excretion with good water elimination. The chlorine elimination is no indication of the nature or gravity of the kidney lesion. The authors do not believe primary salt retention to be the cause of edema, but consider it rather the result of changes in the vessels.

They had no unfavorable results from salt administration.

So far as their observations go, they find little ground for the modern use of salt and poor diet. —*Deut. Arch. f. klin. Med.* vol. 8, p. 485.

**Persistence and Hypertrophy of the Thymus in Basedow's Disease.**—CIERKE has found on section in two cases of Basedow's disease, a decided hypertrophy of the thymus. One of the cases died immediately after the operation. Thorbecke's statistics show a very high operative mortality in cases with persistent thymus. The reason for this is not clear, but there are reasons for supposing an antagonism between the secretions of the thymus and the thyroid, and the possibility of thymus intoxication after the removal of the thyroid. GIERKE suggests that some

of these unfavorable results might be avoided by percussion and transillumination of the thymus region before operation.—*Munich. med. Woch.*, 1907, No. 16.

**Glycosuria in Pancreatic Syphilis.**—STEIN reports a case of severe diabetes in a 47 year old woman, with excretion of diacetic acid and acetone. On section, at the site of Vater's ampulla a sort of crater was found, of 1 cm. diameter, which led to a pocket running through the whole pancreas, and corresponding to the duct. Its wall was formed of necrotic tissue and its lumen filled with broken down cell masses and blood coagula. The surrounding pancreas was sclerosed. Microscopically were observed poor staining of the nuclei in the neighborhood of the necroses and a typical endarteritis. Liver and kidneys showed characteristic syphilitic changes and the stomach an ulcer which was not surely syphilitic.—*Jour. Med. de Brux.*, 1907, No. 12.

**Secretin Treatment of Diabetes.**—FOSTER reports five experiments in the treatment of diabetes with secretin, in all of which his results were negative. He was unable to confirm Moore's observation of diminished sugar excretion under this treatment. He cites also the work of Bainbridge and Beddard, who found no alteration in sugar excretion after the administration of secretion by the mouth.—*Jour. Biol. Chem.* 1907, No. 2.

**Phosphorous in Pediatric Practice.**—MANCHOFF endeavored to find a substitute for the ordinary phosphorus-cod liver oil preparation which should keep better and involve less risk of poisoning. After various experiments he settled on hemp seed, which is very rich in organically combined phosphorus. He uses a meal from which the oil has been removed. From this, he makes a soup, using 1 l. water to 100 g. meal, heating without boiling until the water has evaporated to 250 c. c., and straining. The resulting soup is slightly acid, and pleasant to the taste: 30-50 c. c. of it are added to each bottle. He has used it with 101 children, and reports excellent results in atrophy, rickets, and the spasmodic diathesis.—*Munich. med. Woch.* 1907, No. 12.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**Intussusception.**—From this paper one may gather some bedside suggestions that bear directly on the treatment of acute intussusception. Intussusception is another name of internal strangulated hernia. The symptoms, except the tumor, are in almost all cases evident and striking even to the layman, and the diagnosis is therefore comparatively easy to the medical observer. Where the tumor is not easily felt, we fail in our whole duty to the patient if we do not employ a general anaesthetic for diagnosis, instead of waiting to recognize the tumor later without it. Treatment ought to be surgical and practiced not only within the first twenty-four hours, but within the last twelve hours, like the treatment of any other form of strangulated hernia, remembering that in those cases where gangrene occurs the process may be more rapid than other forms of hernia. Laparotomy and manual reduction offer the patient the best chance of recovery. Mechanical agents in reduction, short of direct manipulation,—such as air, gas, water, oil, etc., while they are free from the danger of atmosphere exposure and handling of the gut, are objectionable, for the reason that we do not know, without laparotomy, the condition of the intestine to be reduced, nor whether, except by waiting, it has been reduced. While young infants operated on for the relief of invagination show a relatively high mortality, yet with very early operative interference we may expect a low mortality—at present 12.5 per cent. JOHN D. RUSHMORE, *Annals of Surgery*, Aug., 1907.

**Eserin Salicylate as a Prophylactic Against Atony of the Bowels.**—VINEBERG calls attention to the familiar bug-bear of the surgeon in laparotomy cases—namely, distention of the bowels and no passage of feces. The use of rubber gloves, gentleness in manipulation, aseptic suture material, and of warm moist pads to the exposed intestines, help to diminish the likelihood of ileus, but even then it sometimes occurs. Experiments have shown that no small part of the intestinal gases is normally absorbed into the circulation and thrown off in expired air; any

condition which limits this absorption, such as collapse, fevers, and prolonged narcosis, will therefore cause meteorism. Furthermore it has been shown that ligation of the mesentery produces a more rapid and severe meteorism than ligation of the gut itself, proving that the nerve and blood supply are the important factors. It follows from this that one must be particularly careful to respect the mesentery. Bearing this in mind, the author found that in cases of left pyosalpinx, which formerly had given worse results than right pyosalpinx, he could improve his results by taking great pains not to traumatize the meso-sigmoid.

Inasmuch as narcosis alone induces meteorism, it is probable that it occurs to a greater or less extent in every laparotomy for the three or four hours following operation, and it is no wonder that it occurs in severer forms when any of the rules of careful technic is violated. In 1901 V. Noorden used eserine (physostigmin) for meteorism and since then many observers have made favorable comment on its use. Research work has shown that it exerts a stimulating effect on the muscular coats of the intestines, increasing peristalsis. Its effects are detected even when the medulla, vagus, and sympathetic and celiac ganglia are excluded.

VINEBERG has inaugurated a custom in his hospital practice of giving eserine in abdominal cases just as the patient is coming out of the anesthetic. In 15 out of 37 cases there was no discomfort from flatus, which is an excellent showing, in view of the fact that he does not administer a cathartic till the fourth day. It is also superior to the record of 55 cases in which eserine was not given. He has not observed any harmful effect from eserine, even in cases of traumatized gut, which certain observers have claimed is a contraindication. It might readily do harm, however, if it were given where meteorism is already present, especially when due to mechanical obstruction or peritonitis. The author believes the drug is well worth trying, especially as it does no injury except in the instances where it obviously should not be used.—*Surgery, Gynecology, and Obstetrics*, Aug., 1907.

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## GYNECOLOGY AND OBSTETRICS.

Conducted by

B. R. SCHENCK, M. D.

**Scopolamine-Morphine Anesthesia in Obstetrics.**—NEWELL recently reported 41 cases of this anesthesia in obstetrics and drew certain conclusions therefrom. He now modifies these conclusions after a further experience of 122 cases, treated in private practice and at the Boston Lying-in Hospital.

A solution of 1-10 gr. of Merck's scopolamine hydrobromide, and  $2\frac{1}{2}$  grs. of sulphate of morphia was prepared at least every fourth day, oftener if a sufficient number of patients were treated to render it necessary. This solution was used in the following way: As soon as labor became active, practically when contractions occurred at 5 minute intervals, an initial dose, containing 1-150 gr. of scopolamine and 1-6 gr. of morphia was given hypodermically. This was repeated at the end of from 1 to 2 hours, unless the patient showed marked reaction to the initial dose. If such was the case, the dose was not repeated until the effects of the drug began to disappear. In no case was it repeated after the cervix became two-thirds dilated.

The following conclusions are deduced:

1. The great majority of the patients reacted markedly to the dose described, practically the only failures being in patients where an old solution, 7-8 days old, was used to test its value.

2. The pain of labor was markedly reduced, in some cases so much that the labor was called painless by the patient.

3. The recollection of pain endured was almost abolished.

4. Labor seems to have been definitely shortened, as well as made easier.

5. The necessity for operative interference has been distinctly reduced in this series of cases, as compared with the average number of operative deliveries in a similar number of patients not so treated.

6. No tendency to hemorrhage has been noted in any of the cases, and only rarely has undue relaxation of the uterus been observed.

7. No bad effects of any sort have been noted, whether in the heart, respiration, or pulse.

In other words we have a distinctly favorable effect in the great majority of cases on whom the drug has been employed, and no bad effects noted. —*Surgery, Gynecology and Obstetrics*, Aug. 1907.

**Bimanual Vibratory Palpation for Outlining Tumors.**—KELLY describes this method of accurately outlining kidney or pelvic tumors thus: "In the case of a pelvic tumor, the finger in the vagina rests lightly on the cervix if it is uterine,

or on its lower pole if it is ovarian. Then the upper hand plays lightly over the abdominal wall, over the tumor, touching first its central portions and then advancing radially out toward its periphery, in all directions, communicating a series of very rapid light vertical succussion movements. These little vibrating thrills are felt very distinctly by the finger in the vagina as long as the tumor is played on, and are lost as soon as the vibration fall on the intestines or fat abdominal wall just beyond the edge of the growth. The actual to and fro tremulous movement with the fingers need not extend over one centimeter. In this way an accurate outline of the tumor and its irregularities can be obtained.—*J. A. M. A.*, June 1, 1907.

**Report of a Case of Inoperable Round-celled Sarcoma of the Ovary.**—COE and COLEY report a case of inoperable sarcoma of the ovary that has been successfully treated by mixed toxins of erysipelas and *Bacillus prodigiosus*, combined with later operation. In November, 1904, examination revealed a large, immovable mass filling the pelvis. The uterus was crowded down almost to the external genitals, and there was tenderness of the lower abdomen and rigidity of the abdominal muscles. Operation showed a bluish-white mass, nodular, and adherent almost all over. Enormous blood-vessels covered the back of it springing from the posterior brim of the pelvis. The abdomen was closed with a diagnosis of inoperable sarcoma of the pelvis, and the patient was sent home to die. Examination of a small portion removed showed perithelial hemangiosarcoma. Three months later the treatment by mixed toxins was begun. The first dose was one-half cubic millimeter, and it was repeated three or four times a week, in increasing doses up to the production of moderate fever. Forty-seven injections were given in all. Twenty-two exposures to the x-ray for ten minutes each were made. There was a very slow diminution in the size of the tumor and general health did not improve. In June operation was done, and a tumor the size of a child's head removed that was pedunculated and almost free from adhesions, originating from the right ovary. There were no metastases. Recovery was uninterrupted and six months later the patient conceived and later gave birth to a healthy child. Later in 1907 she died of pneumonia. The examination of the tumor showed that it was much degenerated within and its structure not well defined; it was reported as probable sarcoma, endothelioma, or carcinoma.—*Medical Record*, March 16, 1907.

## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**Atropin and Ileus**—Schultz gives the full histories of 35 cases of ileus that have come under his observation. All had symptoms of acute obstruction and had not been under previous treatment. The author gave in each adult case 2 milligrams of atropine subcutaneously. This was preceded by a small dose of morphine, 1.5 milligrams to control the cerebral effect of the atropine. In a short time a second dose of atropine was administered. If there was no movement of the bowels at the end of from 24 to 36 hours, depending on the condition of the patient, the frequency of his pulse, and the blood pressure, he was prepared for operation immediately.

In neglected cases where fecal vomiting and signs of peritonitis have manifested themselves, the writer injects a full dose of atropine. This improves the circulation, increases peristalsis, and oftentimes allays the persistent vomiting.

Symptoms of poisoning likely to arise from these large doses (mydriasis, dry-throat, muscular twitchings, delirium) have not given rise to any alarm in his cases and have always been sufficiently counteracted by small injections of morphine. (*Mitt. aus den gren. der med. und chir. Bd. xvll., Heft 5.*)

**Mercuric Values in the Treatment of Syphilis.**—With the numerous methods of administering mercury in the treatment of syphilis, a uniformity in dosage is impossible. Many of the symptoms arising from its excessive use could be obviated if the practitioner could learn the exact amounts necessary to produce desired effects. BERNART has carried on some valuable experiments in this line. With the growing adoption of the injection methods, exact dosage has become possible. Taking this as a basis of comparison, he treated a large series of cases by the (1) intravenous, (2) intramuscular, (3) inunction, and (4) internal methods. Intravenously,  $\frac{1}{4}$  grain of corrosive mercuric chlorid was the average daily injection. Intramuscularly, 1.5 grain of corrosive mercuric chloride, or 2.5 grain of mercuric succinimide were given. By inunction, 68 grains was the average daily dose. Internally,  $\frac{1}{2}$  grain of the yellow iodide or  $\frac{1}{4}$  grain of the red iodide of mercury or  $\frac{1}{2}$  grain of corrosive mercuric chloride were administered. Parallel results were obtained in 18 days in the first class; in 26 days in the second class; in 38 days in the third class; and in 61 days in the

fourth class. Knowing the mercuric value of each of the above preparations, it was easily shown that the intravenous class received 68 grains in all; the intramuscular class, 87 grains; the inunction class 27,704 grains; the internal class 606 grains.

The author draws many conclusions from these trials. Evidently the intravenous method is the surest and quickest. The intramuscular works slower and requires more, probably because the mercury is not quickly and not entirely absorbed from the muscles. The fact plainly shows how small an amount is absorbed by inunction, and also how long it requires a patient to receive the benefit following internal administration.—(*N. Y. Med. Jour.*, Aug. 10, 1907.)

**Treatment of Diabetes Mellitus by Drugs.**

PARSONS advises the employment of drugs in diabetes, (1) to control glycosuria; (2) to avert or remove coma; (3) to relieve symptoms and complications. They should only be given when the patient is on a full and controllable diet.

Opium and its alkaloids have been used for a long time. They are supposed to act either by sedative influence on the nervous system or their power of diminishing the activity of metabolism. They act best when the patient is on a restricted carbohydrate diet. The effects are usually short lived. Probably the best and safest drug in the series to use is codein which can be given in very large doses without producing serious symptoms.

Bromide of potassium is frequently used in highly neurotic individuals. Fifteen grains three times daily is sufficient.

Ebstein is given credit for the introduction of the salicylic acid group as an antiglycosuric. Aspirin is the most commonly used preparation of the series. This is a very useful drug and some excellent results have been reported. From 45 to 60 grains are given daily. Nephritis is the only contraindication.

The author does not credit antipyrin, which is given in doses of 15 grains daily, with much value.

Uranium nitrate given in from 12 to 15 grains three times a day after eating has proven to be of value in the hands of Duncan and West. The author has never seen beneficial results following its use. (*The Practitioner*, London, July, 1907.) (The treatment of coma and of symptoms and complications will be reviewed later.)



# NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Hydrocephalus and Meningitis.**—KOPLIK interestingly and conservatively discusses hydrocephalus as complicating or occurring with acute cerebro-spinal fever, believing that this is a condition of prime clinical importance and one which not infrequently threatens serious damage to delicate tissues, and even menaces life itself.

With the sudden development of fever in a patient who has been apparently doing well, there may be stupor, headache, vomiting, and percussion of the skull may reveal a tympanitic note indicating dilatation of the ventricles and the accumulation of fluid within, and this method of percussion of skull enables an early diagnosis. This, of course, is in adults and children in whom the sutures have ossified.

As to therapy, he considers merely the practice of lumbar puncture, and conservatively warns against its indiscriminate application in cerebro-spinal meningitis. He says, too, that resort should not be had to lumbar puncture for the evacuation of purulent or semi-purulent fluid from the cerebro-spinal spaces, nor for headache, fever, or unconsciousness, and only in fixed cases for diagnostic purposes.

KOPLIK makes use of lumbar puncture only on the principle that the chief danger here is in damage from the distention of the ventricles and the pressure of an infected fluid over a large surface of delicate tissues. While he has seen many cases of meningitis recover under usual methods of treatment and without lumbar puncture, yet he has seen the most happy or decided effects follow its application in cases when conditions made it distinctly indicated for the relief of pressure.—*Am. Jour. of Med. Sc.*, April, 1907.

**Tropical Neurasthenia.**—This has been observed with especial frequency in Americans who have gone to the Philippines and particularly in those sufficiently foolhardy to disregard the wisdom of local customs and who pursue work without proper precautions and who unwisely attempt to follow in the tropics the strenuous life to which they have been wonted in a cooler climate.

Of especial interest is the theory, which has been treated in detail by Woodruff, that this variety of neurasthenia is quite largely due to the effect of the active (ultra-violet or photographic) rays which are invisible and of very short length. These may penetrate the skin, and exert chemical effect upon the tissues. The native protects himself from the sun, works fewer hours, and sleeps from 12 to 3 in the afternoon, a wise precaution which the rash American is too prone to neglect.

Other causes of tropical neurasthenia are enumerated as: (a) manner living; (b) effects of certain infectious diseases, e. g., dengue and dysen-

tery; (c) effect of excessive use of alcohol; (d) effect of continuous and excessive moist heat.

Apropos of the actinic theory as to the etiology, the attempt has been made to prove that "skin pigmentation" in man was evolved for the purpose of excluding the dangerous actinic or short rays of light which destroy living protoplasm. Brunette types have been observed to endure better in the Philippines than the blond types.

Vertigo, faintness, indication of anæmic conditions of the central nervous system, are quite prevalent symptoms in this form of neurasthenia.

As a matter of prophylaxis, certain rules of tropical hygiene should be studied and closely adhered to and these may be embraced under these heads: 1. The avoidance of the sun's direct rays. 2. The shunning of excessive heat. 3. Guarding against excessive labor and long hours, as well as careful attention to appropriate diet.—LOUIS H. FALES, M. D., in *Amer. Jour. Med. Sci.*, April.

**The Cerebro-spinal Fluid.**—Lumbar puncture, first performed by Quincke, over fifteen years ago, has pointed the pathway to much new knowledge, the limits of which are not yet in sight. This fluid's normal pressure has been determined, likewise its protein constituents and their variation in disease,—various cell formulae held to be indicative of special meningeal conditions, the presence of cholin in certain degenerative diseases, notably paresis,—these are only a few of the things determined in relation to the fluid. This paper covers examination of the fluid in the following groups of cases.

1. Cases of diseases other than nervous.
2. Cases of nervous diseases showing no abnormality of the fluid.
3. Cases of tuberculous meningitis.
4. Cases of "purulent meningitis" due to infection with the streptococcus, diplococcus pneumoniae, or micrococcus meningitidis.
5. Cases without "purulent" or tuberculous meningitis, but with abnormality of the cerebro-spinal fluid.

These studies have led to the following conclusions: 1. That these methods offer means for more careful clinical study; that pressure, protein content, and number and kind of cells per c.mm. should be determined. 2. That by these means, a specimen which under ordinary examination appears normal may in this way be found pathological. 3. That normal fluids differ but little in quantitative cell-content. 4. That except along broadest lines, there is nothing specific in the permutations of protein, pressure and cells. 5. That the "clear elements," "cellular degeneration," "pseudo-endothelial cells," often noted are definitely proved to be degenerate cells.—F. PEYRON RONS, *Amer. Jour. of Med. Sci.*, April, 1906.

## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**The Removal of Adenoid Vegetations through the Nasal Passages by a New Method.**—FREER describes his method of removing adenoids through the nose. General anesthesia, combined with local cocaine anesthesia, is employed. The child is placed on its left side, with its left arm behind it, and face brought clear to the edge of the table, and inclined downward, so that the blood can run out of the mouth and nose. The finger is then inserted into the naso-pharynx, while straight forceps are introduced through the nose. The index finger guides as much of the adenoids into the forceps as the latter can hold; in this manner the adenoid tissue in the Fossa of Rosenmueller on the posterior pharyngeal wall, highest part of the pharyngeal vault and posterior nares, is all readily reached and removed, which it not always possible with the curette.

A further advantage of this method is its directness, a straight instrument being used without curves or angles to confuse the muscular sense, and which can therefore be easily guided with exactness. The index finger in the naso-pharynx controls every step of the operation by the sense of touch and pushes the adenoids towards the operating instrument. Absolutely complete removal of the adenoids is the result.—*Annals of Otolaryngology, Rhinology and Laryngology*, Dec., 1906.

**Trypsin Treatment of a Case of Malignant Disease, Involving the Left Tonsil, Base of Tongue, and Epiglottis.**—CAMPBELL reports a case diagnosed clinically as an inoperable carcinoma of the base of the tongue, the tonsil, and the epiglottis, in a man 56 years old, which he treated with injections of trypsin. Swallowing the smallest amount of fluid was attended with much difficulty, speech was thick and indistinct, and pain was constant. Potassium iodide and incisions were of no avail. 5 minims of Fairchild Bros. & Foster's injectio trypsin, 3% solution, diluted with 10 minims sterilized water, were injected over the enlarged, adherent submaxillary gland, and at intervals of three days 10 minims in the same region. After the fourth injection the swollen submaxillary glands decreased in size, and swallowing became more comfortable. The dose was increased to 20 minims, diluted with 2 volumes of distilled water, and the injection made under the skin of the buttocks, each alternate day. At the time of the

report the infiltration in the tongue, tonsil, and epiglottis, and submaxillary region had greatly decreased. No opiate was required for the pain, and the general condition was greatly improved, and the patient believed himself entirely cured.—*Annals of Otolaryngology, Rhinology and Laryngology*, March, 1907.

**On the Permanence of Improvement in the Shape of the Nose, Obtained by the Subcutaneous Injection of Hard Paraffin.**—After an experience of five years, DOWNIE states that the paraffin is in no way affected when the patient is exposed to a high temperature, either from residence in a tropical climate, or from exposure to great heat, as is necessary in certain occupations. The improvement is also permanent, as the paraffin remains in situ indefinitely.—*Annals of Otolaryngology, Rhinology, Laryngology*, Dec., 1907.

**Concerning the Treatment of Papillomata of the Larynx.**—KOELLREUTHER believes with Nemas-Ofenpest, that the curing of papillomata of the larynx is, perhaps, independent of the manner of operation, and to a certain extent also the thoroughness with which the operation is done, but that it is dependent upon the spontaneous ending of their tendency to recur. Against this tendency, the author warmly advocates the internal use of arsenic, in the form of Fowler's solution. He reports four cases treated surgically and internally in this manner in which the tendency to recurrence was previously very marked, and of several years duration, but under treatment, as above outlined, there were no recurrences.—*Monat. für Ohrenheilkunde*, XLI., II.

**Favorable Effects of Trypsin in a Case of Laryngeal Epithelioma.**—DUPUY treated a case of intrinsic laryngeal carcinoma, a recurrence after the removal of the primary growth by thyrotomy, with injections of trypsin, and the internal use of Holadin (extract of pancreas) alternately. Sixteen days after the first injection, the growth appeared pale and harder and had diminished one-half in size. Forty-one days after treatment the tumor had still further decreased, so that it remained sub-glottic. The decrease in size continued until forty-five days later, when it was no longer visible. There was no sign of recurrence two months later, and the general condition was excellent.—*The Laryngoscope*, May, 1907.

# GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

**The Value of System in Genito-Urinary Work.**—MILLER says that systematic work is quite as much a necessity in professional life as in business life. This is especially true in genito-urinary work, in which diagnosis of the specific condition is often made only after weeks of unnecessary suffering on the part of the patient and loss of valuable time on the part of the attendant. Delay is unfair to the patient; at the same time it is inconsistent with conscientious effort in his physician.

Unless the condition is an absolutely clear one, on observation, the following plan should be followed:

I. Examination of external parts for phimosis, balanitis, venereal warts, arrested development, infection from syphilis or chancroidal poison, herpes, and finally the size of the meatus.

II. Examination of the urine; first, the two glass test for macroscopic observation, then chemical tests and finally microscopic examination.

III. Digital examination of the prostate, testicles, and seminal vesicles; then microscopic observation of their expressed contents.

IV. Instrumental examination of the urethra (when not contra-indicated by acute inflammation) for stricture; then instrumentation for vesical calculus and catheterization for residual urine.

V. Cystoscopy, for the purpose of determining intravesical conditions other than calculus; and finally ureteral catheterization.

This plan, which, with the exception of the employment of the cystoscope, is possible for any practitioner to carry out, will, if consistently followed, quickly direct the attendant to a proper diagnosis and the patient to a reasonably prompt relief.—*Am. Journ. of Derm. & Gen. Ur. Dis.*, May, '07.

**Iodine. Its Employment in Genito-urinary Diseases.**—The author reports most satisfactory

results from the use of an aqueous solution of iodine and vitellin silver (iodine, 1 per cent, vitellin silver, 6 per cent) in all kinds of urethral infections, as employed in the genito-urinary department of the Jefferson Hospital, Philadelphia. Care must be taken in compounding. Iodine crystals and potassium iodide in equal quantities (the potassium iodide being used chiefly to insure solubility) are made in watery solution, the silver salt is then added and the water is then added to make a proper volume or solution. Prepared in this way the fluid is said to be rendered absolutely non-irritant to the tissues. It is employed in cases of urethritis of recent origin as well as in those of long standing. It is administered not as an irrigant but as an injection in such quantity as to fill the urethra and be retained in the canal for 5 minutes. It is used twice daily until the infection has disappeared (only 4 or 5 days are said to be necessary in many cases). It is then supplanted by a simple astringent injection. The chief claim which the solution can make to unusual consideration lies in the fact that in the strength in which it is strongly germicidal, it is wholly harmless in its effect upon mucous surfaces.—C. S. HIRSH, *Amer. Jour. Derm. and Genito-urinary Diseases*.

**Sterility in the Male; Its Causes and Surgical Treatment**—FRANCIS R. HAGNER, of Washington, says that the male is frequently at fault in childless families. The most frequent cause of sterility in the male is epididymitis. There may be aspermia, azoospermia, oligospermia, motionless spermatozoa, or obstruction of the passage for the semen. Epididymitis and operations for stricture may be responsible for the last-mentioned condition. Next to gonorrheal infection, masturbation is the most frequent cause of sterility. **Bi-lateral syphilitic** and tuberculous disease may be responsible for it. X-ray workers are temporarily sterile. The author describes an operation for closure of the globus minor by making an anastomosis between the globus major and the vas deferens, which has been successfully performed by him.—*Medical Record*, August 10, 1907.

## ORTHOPEDIC SURGERY

Conducted by

WILLIAM E. BLODGETT, M. D.

**Tuberculous Disease of the Spine in Children.**—In a study based on 28 cases of Pott's disease, treated at the Victoria Hospital for Sick Children, Hull, OLIVE ELGOOD writes as follows with reference to vaccine treatment.

"Sir Alfred Wright's method of the determination of opsonic indices has safeguarded a treatment which proves itself of great value in carefully selected cases of this disease, although it should be understood that in nearly all cases its use should be an adjunct to one of the other forms of treatment described. In every case, rest is essential, and it is, in many cases, wise to combine mild surgical measures with the injections of tuberculin.

"Thus, where sinuses are present, it is reasonable to suppose that healing will be facilitated by the removal of the lining membrane by curetting, while, on the other hand, it is obviously unreasonable to expect that tuberculin can effect the absorption of a portion of necrosed bone, which in many cases is the cause of the persistence of a sinus. Again, it frequently happens that in a chronic tubercular sinus there is a mixed infection, so that the injection of tuberculin alone is insufficient. Therefore it is best, where a sinus fails to respond to tubercular treatment, and where irritation by dead bone is not suspected, to cultivate a growth from the pus and if possible to make a vaccine from the culture obtained and to inject it concomitantly with the tuberculin."

"Out of seven cases treated by tuberculin inoculation, I have found complete satisfaction with the healing of long standing sinuses only in two, in a third the general condition showed a marked improvement, though the local condition remained unchanged, while in the other four cases no effect from the treatment was noticed."

"It is certain that there are few treatments in medical science that require so much individual selection of cases if satisfactory statistics are to be obtained, and it appears to me that the surgeon who relies solely on his opsonic chart for indications to inoculate will certainly meet with disappointment. Thus in cases where the cause of a persistent sinus is the presence of a sequestrum, it must be unreasonable to suppose that

tuberculin can effect its cure. On the other hand, if the sequestrum be surgically removed, the tuberculin will most probably be a most valuable adjunct towards the final healing of the sinus."

"Again, the system of dosage entirely from the opsonic curves, in any case, does not always seem justified by results. In illustration, I quote two charts, one of which showed a satisfactory curve under treatment, but the patient steadily declined in health; the other received doses according to her local condition, i. e., when the discharge from the sinus began to increase slightly, the dose of 1/1000 K. T. R. was repeated, irrespective of the opsonic index. This latter case was the one brilliant cure under tuberculin of my series, the child having had six months' treatment of mild surgical measures and immobilization without improvement while in two months of tuberculin treatment all the sinuses healed and the condition apparently cured."

"I have neither seen nor read of any case in which harm has been done by inoculations of the small doses, which produce immunizing responses without constitutional disturbance, and therefore, although it is admittedly of limited use in bone troubles, there is no reason why it should not have an extensive trial in all forms of this disease. It is questionable, however, whether the amount of labor consequent on a systematic examination of the opsonic index meets with sufficient reward.

"Besides the charts noted, I have seen a fairly large variety of charts of cases of various forms of tuberculosis, and have frequently been struck by the loss of conformity between satisfactory clinical and pathological results."

"In conclusion, Elgood quotes the words of Watson Cheyne, "In joint and bone diseases, where no operation would formerly or now have been considered necessary, by all means add the use of tuberculin to other methods employed. But blindly to convert the practitioner into an immunisator, as Professor Wright puts it, is, I believe, a totally retrograde step."—*Brit. Jour. Children's Diseases*, June, 1907, IV., 6, pp. 229-253.